REPORT RESUMES

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AN INSERVICE EDUCATION PROGRAM TO FACILITATE INTEGRATION IN OAK RIDGE SCHOOLS THROUGH IMPROVEMENT OF LANGUAGE SKILLS AND RELATED CURRICULUM FROM PRE-KINDERGARTEN THROUGH JUNIOR HIGH SCHOOL.

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DESCRIPTORS- CURRICULUM, CONSULTANTS, DISADVANTAGED YOUTH, EDUCATIONAL PROGRAMS, *ELEMENTARY EDUCATION, INSERVICE TEACHER EDUCATION, INSTRUCTIONAL MATERIALS, JUNIOR HIGH SCHOOLS, LANGUAGE SKILLS, *LANGUAGE ARTS, METHODS, *NEGRO STUDENTS, *PRESCHOOL EDUCATION, *READING PROGRAMS, RACIAL SEGREGATION, SCHOOL INTEGRATION, OAK RIDGE SCHOOLS, HEW,

THIS PROJECT IN THE OAK RIDGE SCHOOLS WAS DESIGNED TO IMPROVE THE LANGUAGE ARTS AND READING PROGRAMS FOR NEGRO STUDENTS AT A RACIALLY SEGREGATED ELEMENTARY SCHOOL. IT ATTEMPTED TO PREPARE THESE STUDENTS FOR SUCCESSFUL SCHOOL INTEGRATION IN A DIFFERENTIATED EDUCATIONAL PROGRAM AT AN INTEGRATED JUNIOR HIGH SCHOOL. THE PROGRAM INCLUDED PRESCHOOL EDUCATION, IMPLEMENTATION OF A SPECIAL READING PROGRAM, DEVELOPMENT OF INSTRUCTIONAL MATERIALS, AND METHODS AND APPROACHES FOR DEALING WITH DISADVANTAGED YOUTH IN ALL CURRICULUM AREAS. A STUDY CENTER WAS ORGANIZED AT NIGHT AND MANNED BY VOLUNTEER TEACHERS. EXTENSIVE WORK WAS DONE BY A COORDINATOR IN DEVELOPING BETTER HOME-SCHOOL RELATIONSHIPS. AN INSERVICE TEACHER EDUCATION WORKSHOP WAS CONDUCTED WITH CONSULTANTS BROUGHT IN TO HELP THE TEACHERS IN VARIOUS CURRICULUM AREAS. THE REPORT CONCLUDED THAT CONSIDERABLE GAINS WERE MADE IN TERMS OF IQ POINTS AND READING ABILITY. (JS)

ED013140

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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An Inservice Education Program to Facilitate Integration in Oak Ridge Schools Through Improvement of Language Skills And Related Curriculum from Pre-Kindergarten Through Junior High School

Author and Project Director: William Gene Watson, Ph. D.

Grant-to-School-Board Number OE 36-52-E014
P. L. 88-352, Title IV, Section 405
The Civil Rights Act of 1964

The Project Reported Herein Was Supported by a Grant
from the
U. S. Department of Health, Education and Welfare
Office of Education

June 30, 1966

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ABSTRACT OF FINAL REPORT

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Purpose: The purpose of this study was to enrich the language development program and the reading program at a segregated elementary school so that pupils might be actually integrated into desegregated schools, and to plan for a differentiated educational program in a desegregated junior high school.

Procedure: The program included development of an early childhood education program, implementation of a special reading program, development of materials, methods and approaches for dealing with disadvantaged children in all curriculum areas. An inservice workshop was conducted, a Study Center was organized and extensive work was done in developing home-school relationships.

Results and Conclusions: The pre-kindergarten language development program was found to be highly successful. Children in the kindergarten experienced a mean gain of 21.08 IQ points and children in first grade changed an average of 22.3 IQ points. The average growth of children who took special reading was 1.15 years. the home-school program was found to be very worthwhile. Materials were developed in each area of instruction at the junior high school.

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CURRICULUM IMPROVEMENT PROJECT UNDER THE CIVIL RIGHTS ACT

INTRODUCTION

The Oak Ridge Board of Education at a special meeting on March 23, 1965, approved for transmittal to the U. S. Office of Education a proposal for an inservice education program to facilitate integration in Oak Ridge Schools through improvement of language skills and related curricula from pre-kindergarten through junior high school. This proposal provided for implementation of pilot projects at Scarboro Elementary School and Robertsville Junior High School. These two schools were selected because they afford the best opportunity for Oak Ridge Schools to attack the problems of racial, social and academic segregation.

The Oak Ridge Schools were desegregated, by executive order, in 1955. However, since pupils continued to attend the school in the district of their residence, and practically all Negroes lived in Gamble Valley, the Scarboro School located in that district has been, in effect, segregated. Research in Oak Ridge Schools consistently demonstrated that children in the segregated school have poor communication skills. Achievement test scores in reading for these children have been significantly lower than those of children in other schools. Furthermore, when these children became junior high school pupils, they found it difficult to become involved in the total school program. Lack of ability in academic subjects and poor communication skills accompanied by problems related to racial difference caused these children to segregate themselves or to be segregated at the junior high school.

Because of the geographical isolation of the Scarboro community, children who were somewhat culturally disadvantaged, socially deprived and academically retarded, have been integrated into a junior high school which serves children who are culturally advantaged, socially stable, academically accelerated and from a cosmopolitan background. The challenge was, therefore, to design a program which would facilitate learning in such a way as to provide for total integration.

A proposal was submitted to the U. S. Office of Education containing specific objectives as outlined in two phases. This proposal was approved on June 15, 1965 and the Oak Ridge Schools System was notified to proceed with the project. The total appropriation for this project in the amount of $77,287 provided for employment of a project director, a home-school coordinator, a project secretary, and consultants in all subject areas. Funds were also approved for staff members to participate in workshops and for special training devices.

PROCEDURE

Personnel

In his letter of May 13, 1965, Dr. E. L. Whigham, Superintendent of Oak Ridge Schools, confirmed the conditional offer of employment as Project Director to Dr. W. G. Watson, Associate Professor of Psychology at the Agricultural and Technical College of North Carolina at Greensboro, North Carolina. Dr. Watson arrived in Oak Ridge on June 14, 1965 and was extended a contract on June 23. The role of the Project Director was clarified by Administrative Bulletin No. 1, dated July 8, 1965. (See Appendix A)

Miss Mary Elizabeth Alexander of Oak Ridge was retained as Home-School Coordinator. Miss Alexander had taught mathematics for several years at Robertsville Junior High School and has lived in Oak Ridge since 1945.

Mrs. Myrian Works was hired as Project Secretary on July 1, 1965. Mrs. Works had been employed as a part-time secretary with the Oak Ridge Schools for 3-1/2 months. Her work experience prior to coming to Oak Ridge included work with the Industrial Education Department, East Tennessee State University.

Mrs. Dorothy Gilpatrick was assigned to the position of teacher of the pre-kindergarten language development class. Mrs. Gilpatrick taught with Oak Ridge Schools until 1954 and worked as educational assistant with the First Methodist Church of Oak Ridge from 1960 to 1964.

Miss Mabel Ruth Westbrook was assigned to the Scarboro Elementary School as special teacher of remedial reading. Miss Westbrook had been with the Oak Ridge Schools since 1944 and had taught at Jefferson Junior High School for the past several years.

Consultants were invited to participate in the project as follows:

Reading.

Dr. Nicholas Silvaroli, Associate Professor of Education
and Director of Reading Clinic, Arizona State
University, Tempe, Arizona.
July 11 - 14, September 9 - 10, March 30, April 2,

Science.

Dr. H. Craig Sipe, Professor of Physics and Science
Education, George Peabody College, Nashville,
Tennessee.
July 11 - 12, August 2, September 2 - 3,
November 12, December 13, February 10 - 11,
April 28 - 29, May 10 - 11.

Mathematics.

Mrs. Mary Laycock, Teacher, Oak Ridge Schools,
Oak Ridge, Tennessee.

Language.

Dr. Ruth Strickland, Professor of English, University
of Indiana, Bloomington, Indiana.
July 19, February 25.

Dr. Thelma G. Thurstone, Professor of Education,
University of North Carolina, Chapel Hill, North
Carolina.
October 7, May 12 - 13.

Dr. Siegfried Dietz, College of Education, University
of Tennessee, Knoxville, Tennessee.
November 6.

Mrs. Julie Salem Poche, Oak Ridge, Tennessee.
November 17, 18, 22, 24; December 1, 2, 6, 7,
13, 15, 16.

Fine Arts.

Mr. Joseph Firszt, Professor of Music, Berea College,
Berea, Kentucky.
July 12 - 13.

Dr. Leon Karel, Allied Arts Certification, State Teachers
College, Kirksville, Missouri.
February 24 - 25, April 18.

Industrial Arts.

Mr. Rude Osolnik, Professor of Industrial Arts, Berea
College, Berea, Kentucky.
July 12 - 13, February 25 - 26.

Mr. C. H. Gibson, Assistant Instructor of Industrial Arts,
Model Laboratory School, Richmond, Kentucky.
February 25 - 26.

Mr. Robert Halsey, Industrial Arts Department, Fayette
County Schools, Lexington, Kentucky.
February 25 - 26.

Home Economics.

Miss Agnes Aspnes, Professor of Home Economics,
Berea College, Berea, Kentucky.
July 12 - 13, October 22, March 3 - 4.

Mrs. Orrissa P. Simpson, Home Economics State
Supervisor, University of Tennessee, Knoxville,
Tennessee.
March 3 - 4.

Mrs. Elaine Trauger, Oak Ridge, Tennessee.
February 28, March 7, 14, 21.

Social Studies.

Dr. Jack Allen, Professor of Social Studies, George Peabody College, Nashville, Tennessee.
July 12 - 13, August 2, August 24 - 25, October 11 - 12, February 10 - 11, April 1.

Materials Consultant.

Mr. William Taylor, Curriculum Supervisor, Fayette County Schools, Lexington, Kentucky.

Lecturer.

Dr. Sam Shepard, Jr., Assistant Superintendent of Schools, St. Louis, Missouri.
July 9.

Dr. N. A. Crippens, Project Director, Nashville Education Improvement Project, Fisk University, Nashville, Tennessee.
October 22.

Statistics.

Mr. D. W. Campbell, University Testing Service, University of North Carolina, Chapel Hill, North Carolina
September 17 - 18.

Junior High Consultant.

Dr. William Alexander, Chairman, Curriculum and Instruction, University of Florida, Gainesville, Florida
April 15-16.

The Workshop. (July 6 - August 6)

On Tuesday, July 6, 1965, teachers and staff members from Scarboro Elementary School and Robertsville Junior High School met in the Robertsville library for the first day of the workshop. The Project Director presented data explaining the need for the project, discussed the workshop schedule and gave an overview of the proposal. Each participant was asked to write a complete report of activities of the past year. These reports were collected on July 9. The following day was spent in evaluation sessions. The Minnesota Multiphasic Personality Inventory and Minnesota Teacher Attitude Inventory were administered to workshop participants. Each participant listed twenty characteristics of the ideal pupil, twenty characteristics of the most undesirable pupils, and ten statements considered to characterize the good teacher. July 8 was spent considering theoretical foundations for personality. The Project Director discussed the personality theories of Karl Jung, Kurt Lewin and Carl Rogers. Stress was placed on the concepts of self, field theory and empathy. On July 9, Dr. Samuel Shepard, Jr. of St. Louis was the special speaker. Dr. Shepard stressed constructive ways of inspiring achievement in disadvantaged pupils. He told of the success of the St. Louis programs and placed great emphasis on teacher-parent cooperation. The Superintendent of Schools, the Assistant Superintendent, and the Director of Pupil Personnel Services attended this meeting.

Six consultants, the Assistant Superintendent of Schools, the Director of Pupil Personnel Services, the Home-School Coordinator and the Project Director had a dinner meeting at the Alexander Motor Inn on Sunday, July 11. At this meeting, consultants were given an overview of the project. They were encouraged to work for specific curriculum improvements which would most likely result in efficient utilization of time, personnel, equipment and materials to facilitate differentiation of instruction. The stress was placed because of the assumption that efficient teaching will result in effective integration of all pupils into the school program. Ideas were exchanged, questions were asked and the consultants interacted as a team.

On Monday, July 12, the team of consultants met with the workshop participants. All participants met with Dr. Nicholas Silvaroli (Reading Consultant). Dr. Silvaroli discussed levels of reading, word attack skills, use of tests, grouping and materials. He placed stress upon the teaching of reading in subject areas and presented outlines for use in development of reading activities in these subject areas. Throughout the day, consultants in science, fine arts, mathematics, home economics and social studies met with departmental groups. On Monday afternoon the consultants met as a group to compile tentative reports. They consulted with workshop participants again on Tuesday, July 13. For the remainder of the week, participants worked on group projects.

Dr. Ruth Strickland addressed the workshop on July 19. She discussed language development and encouraged the teachers to work with the language which each child has. Dr. Strickland stressed the point that children love language, that by age six, 2500 words are in the vocabulary of the child and grammar patterns are formed. She stressed the value of talking as an activity in the elementary grades and she encouraged the teaching of English through writing.

Group activity was continued by the participants with members free to join or leave any group at any time. The Scarboro staff met as a group to discuss feelings and hostilities. Some of the participants shared their attitudes about segregation while others spoke of subtle hostilities they feel for white faculty members. The participants from Robertsville also met as a group to discuss prejudices, discipline and personal feelings. The two staffs had joint meetings for discussion of mutual problems, personal hostilities and pupil acceptance.

Mr. Bill Taylor, consultant on educational materials, arrived on July 26 and met with workshop participants in small groups on Monday, Tuesday and Wednesday. Mr. Taylor provided extensive lists of materials appropriate for use with subject areas. He explained the use of teaching packages and stressed planning of units of work in such a way as to include all members of a class. Mr. Taylor was especially helpful in explaining the uses of audio-visual equipment and teaching aids.

Dr. H. Craig Sipe, science consultant, made a second visit to Oak Ridge on August 2. He met with members of the Science Department at Robertsville and stressed the use of experiments, simple equipment and ungraded supplementary materials.

Mr. Hartwell Weaver, representative of Science Research Associates (SRA), explained use of the reading laboratory to the group on August 4.

On August 5, the Project Director spoke to the workshop group on professional ethics, mental health and behavior theories. This was the final joint meeting. Participants were asked to write brief evaluations of the workshop.

On August 16, 1965 a progress report reviewing project activities to that date was presented to the Superintendent of Schools.

Phase A (Scarboro Elementary School)

1. Data were gathered from cumulative folders of 234 children who would attend Scarboro Elementary School in Fall 1965. These data included name, sex, date of birth, number of children in family, teacher comments relative to parent cooperation, teacher comments relative to pupil, achievement test scores, intelligence test scores and other information. While only six items of information were available for each kindergarten

child, forty items were available on each rising sixth-grade pupil. (See Appendix B)

2. Lists were prepared of those children at each grade level who were achieving below national norm. These lists were available to teachers so that workshop time could be devoted to preparation of specific teaching packages for individual children.

3. The principal of Scarboro Elementary School prepared a history of the school and community. (See Appendix C)

4. A list was prepared of all four-year-old children who would enter the pre-kindergarten language development class. Parents of these children were contacted and visits were made to each home by the Home-School Coordinator. A meeting was held with these parents on August 5, 1965 for the purpose of explaining the language development program and to elicit information as to types of activity that might be helpful to them. Mrs. Dorothy Gilpatrick, teacher for the pre-kindergarten class, met with these parents and discussed plans for the coming year.

5. Thirteen members of the Scarboro staff participated in the five-weeks workshop (July 6 - August 6, 1965). The principal of Scarboro Elementary School attended all meetings of the workshop. Three speech clinicians also attended this workshop to assist in organization of the Language Department program.

6. Study Center. The Scarboro Study Center was opened on September 13, 1965. The intent of the Center was to provide a place for children to work in an informal setting with teachers and parents. Several parents indicated they would come to the school to assist and some wanted to come to study. The school library and cafeteria were made available three nights per week (Monday, Wednesday and Thursday) from six to eight p. m. Each teacher from the Scarboro and Robertsville staff was invited to volunteer for at least one night per month. Several teachers volunteered oftener, but most were available one night per month. Teachers from the Oak Ridge High School, not involved in the project, were most generous as volunteers. Student participation in the study program was varied. Some children attended regularly, brought specific assignments, and utilized the time for school work while others read magazines, socialized or slept. Behavior problems were few. Some children who did not attend the Center occasionally disturbed the group by knocking on the cafeteria windows or yelling into the room. Police were requested to patrol the area of the school to discourage this behavior. Average attendance during the first three months was approximately 90.

Encyclopedia, dictionaries, magazines and books were available to Study Center participants. Teachers noted the great difficulty these children had using reference materials and their inability to budget study time.

Several teachers commented on the new attitude of students toward school after the Study Center opened. They reported that more homework was completed, students came to class with specific questions and attitude toward school seemed vastly different. Students, likewise, reported a new appreciation for school, a new feeling toward teachers and more pleasant class experiences. It was observed that students who came to the Study Center were not those who were already achieving maximally at school. The "better" students did not come. Those having problems came. The opinion is that students who already perform well in school did not need to come, but those who were having difficulty saw the Center as a place to receive help.

A correlation was noted between behavior and attitude of students at the Center and activities within the community. When some activity of a disruptive nature took place within the community, the children were more restless, more talkative, and less studious. A quiet weekend in the community was generally followed by calm study sessions.

Because of the large number of students attending the Center, it was necessary to employ two persons as supervisors. These two teachers were male instructors who needed additional income and who were interested in the Center. Nevertheless, no teacher from the Scarboro Elementary School volunteered services after the full-time supervisors were employed.

As soon as spring came and children could play outside, fewer pupils came to the Study Center. This led to closing the Center during the last month of school.

7. Reading Program. Data relative to achievement of pupils in Oak Ridge Schools have consistently shown children from the Scarboro Elementary School to be somewhat below the national norm and far below the local norm in reading achievement. (Sixth-grade pupils at Scarboro Elementary School have consistently been two years below the national norm and three years below the Oak Ridge norm in reading achievement.) The Progress Report dated August 16, 1965 showed graphically both the lack of development in this skill and a consistent pattern of lack of achievement in reading. Since this project was designed to facilitate integration of pupils into the total school program, special emphasis was placed on the teaching of reading. This emphasis came in two forms. All teachers were encouraged to consider themselves teachers of reading and all were given assistance in teaching basic reading skills. A full-time special reading teacher was assigned to the Scarboro Elementary School.

The Gates Reading Tests was administered by the special reading teacher to all pupils in the Scarboro Elementary School. Results from this administration confirmed previous findings that a large majority of the pupils were reading far below grade level. Only four of thirty-two pupils in grade six were reading at or above expected level. Of twenty-eight pupils in grade five, only seven read at or above expected level, and in grade four, twelve pupils were reading as expected. It was soon apparent that all pupils needing special help in reading could not start the year with the special teacher.

A graph was made of the achievement versus ability of all pupils in grades two through six by grade level. Scores from the Gates Reading Tests were plotted on one axis while scores from mental abilities test were plotted on another axis. The resulting graphs were divided by drawing one line through the mean mental abilities level for the grade and another line through the actual placement of the grade. This provided quadrants on each graph. This is, children with high ability and high reading were clustered in one quadrant; those with high ability and low reading achievement were in another quadrant; and those with low ability and low reading achievement were in a third quadrant. Few children were high in both ability and reading achievement. Since the problem was utilization of the time of the special reading teacher in the most productive manner, it was decided to place high-ability-and-low-reading-achievement pupils in small groups for special instruction in reading. This plan was followed. Reading groups were kept small with nine grade-six pupils in the largest group.

In addition to taking small groups of pupils for special work in reading, the reading teacher visited three classes for thirty minutes per day to teach phonics. The regular teacher remained in the classroom during the phonics lessons and each was urged to follow-up these classes with other reading lessons. After nine weeks, most of the pupils from reading groups were returned to the regular class and other groups were formed.

Several pertinent observations were made of these small groups. The children appeared to have learned initial consonants but were unable to read the remainder of the word. In small groups, more progress seemed to be made and the group seemed to work better if boys and girls were taught separately. A group of boys would work well until girls joined the class and at that point much "clowning" and "giggling" would start. Also, the children seemed lacking in ability to draw conclusions. They might answer specific questions about the reading selection but often were unable to make inferences. An inability to predict outcomes was noted. Motivation for these small classes was inconsistent. One child might show great interest for a few days only to avoid the group later. The children would read on the level of their ability but did not show any indications of challenge to read more difficult material.

In general, both the phonics classes and the small groups were successful. The nine grade-six pupils showed an average gain of seven months on the Gates Reading Tests after only nine weeks of instruction.

The short, thirty-minute sessions with the special reading teacher was found to be too brief. Future groups should be scheduled for at least forty-five minutes of reading. Close coordination between reading teacher and the regular teacher was an absolute necessity. Also, special reading instruction was better interpreted as developmental reading than as remedial reading. The latter term seemed to produce negative attitudes from parents and children while the former is readily accepted. Interpretation of the reading program to parents in small groups was helpful and it was important to point out that groups are not formed because of lack of mental ability. Even with careful interpretation, some children were reluctant to participate because of the stigma attached to special classes.

About 160 children were taught by the special reading teacher during the school year. During the first quarter 102 children were scheduled, 79 during the second quarter, 69 during the third quarter and 48 the last quarter. Some children attended special reading groups for only nine weeks while others were moved from one group to another.

Table I shows mean and median gains by classes and the number of children in each class reading at grade level in September 1965 and in

TABLE I

READING IMPROVEMENT IN SCARBORO SCHOOL AS MEASURED BY GATES READING TEST - 1965-1966

	Mean Gain	Median Gain	No. Reading at Gd. Level 9/65	No. Reading at Gd. Level 5/66
Grade 2	1.35	1.84	11	24
Grade 3	.99	1.1	22	26
Grade 3 - 4	.79	.8	0	3
Grade 4	1.0	1.1	13	15
Grade 5	1.03	.8	7	9
Grade 5 - 6	1.19	1.2	0	0
Grade 6	1.22	1.0	4	12

May, 1966. In most cases pupils changed more than would have been predicted on the basis of previous performance and ability scores. One pupil, transferred from a special education class in October, 1965, remained in a special reading group throughout the year and showed an improvement of 2.5 years. This pupil, however, was still not reading at grade level in May, 1966.

It should be pointed out that although greater than expected progress was made during this school year, many of the children involved were in need of improvement which simply could not be accomplished in nine months.

The mean improvement for pupils who took special reading was 1.14 years as measured by the Gates Reading Test while the mean gain for those not in a special class was .98. It should be emphasized that the special teacher was assigned only those pupils most in need of special instruction and that few of those assigned remained in a special group for longer than nine weeks. When it is remembered that ability scores for these pupils would suggest less than one year of progress, it becomes obvious that the special instruction was of tremendous value and should be continued.

8. The Pre-Kindergarten Program. The language development class for four-year olds was planned to include all Scarboro children

who would attend first grade in 1967. Initial contacts with the home was made by the Home-School Coordinator who explained the purpose of the program to parents and enrolled children. Twenty-nine children were enrolled for the program, and a meeting was planned with parents and the teacher prior to the opening of school. At this meeting the teacher explained again the purpose of the program and invited suggestions from parents. Interestingly, the only suggestion from parents was that some provision should be made for night classes for the parents.

Later, a father came to the Project Director and requested that his son be permitted to enter the program. He explained that his wife had expired earlier in the year, that the child could not be properly cared for if older children attended school, and that he wanted assistance. The son, age three, was enrolled in the program with the understanding that he might spend two years in the class. Attendance was poor and the child soon dropped out of the program to stay home with an older sister who was also out of school.

One grandmother withdrew her grandchild from the program because she objected to having the child sit on the floor, she did not want the children to play in the gymnasium, she felt the teacher was "too neat" and she did not care for the child to play with other pupils. Attempts to explain the program were in vain, and the child was never permitted to return to the program.

The pupils in this class exhibited the usual wide variety of personal characteristics, but the majority were non-verbal, non-aggressive and shy. While a few children could be classified as having developed normal speech patterns for their age, most either did not talk or spoke in broken sentences. Instruction emphasized listening skills, following directions, respect for others and conversation. Much time was spent each day with the children talking. The teacher was careful to give suitable standard English models, but language was never condemned. Efforts were made to encourage the children to extend their sentences, and many words were introduced.

A thesis by Albert Reid at the University of Tennessee pointed out the social status of families represented in this class and how the parents viewed the program. The average family was noted to be composed of 6.2 persons subsisting on an annual family income of $2,853. One-fourth of the parents reported an annual income of less than $1,500.

Using the Warner Scale of Social Status, fifteen (63.6%) families of these children were in the lower-lower class group and eight families (28.7%) were in the upper-lower class category. Two families were in the upper-middle class group.

Twenty-six mothers reported having attended parent conferences with the teacher and all reported having visited the classroom. Twenty-one of these parents reported having received helpful information from the teacher. The parents reported that this child differed from other children in the family in that:

a. he is much more talkative

b. seems to have matured faster

c. is much more active and aggressive

d. seems to take much more interest in his environment

Two children enrolled in this class moved from the community during the school year, one child (the youngest) stopped coming and one was moved by her grandmother. Classes were conducted for 179 school days. The average attendance was 147 days. Several children suffered extended illnesses during the year and an epidemic caused many absences. Letters were written to each parent at the end of the school year by the teacher to advise of progress. These letters reveal that the teacher reported having noted growth in the following areas.

A. Discipline

1. Self discipline. (1)
2. Ability to take correction. (4)
3. Became angry toward other children less often. (1)
4. Increased in aggressiveness. (4)
5. Obeyed rules better. (1)

TABLE II

PARENTS' ASSESSMENT OF CHILD'S GROWTH IN PRE-KINDERGARTEN PROGRAM

OBSERVED TRAIT	CHANGE IN BEHAVIOR			
	Increased	Decreased	Static	Not Sure
Obedience	16	1	11	0
Politeness	13	1	11	2
Talkativeness	16	0	11	1
Vocabulary	18	0	7	2*
Inquisitiveness	20	0	6	0
Use of longer sentences	24	0	4	0
Settling differences peacefully	23	2	2	0
Sharing toys more freely	24	2	2	0
Ability to express himself clearly	23	3*	2	0
Speech problem (if present) improved	16	0	0	2
Interest in environment	24	0	0	2

*One parent said her child now uses incorrect English which was picked up from school associates.

B. Group Relations

1. Became more a part of group. (2)
2. Stopped "telling on other children." (1)
3. Learned to play with others. (3)
4. Felt responsible for the group. (3)
5. Learned to take turns. (3)
6. Positive feelings for others. (3)
7. Cooperation with groups. (2)
8. Learned to listen to others. (1)
9. Stopped crying for her own way. (2)

C. Independence - Personality

1. More talkative. (4)
2. Happier. (2)
3. More mature. (1)
4. Overcame shyness. (4)
5. Stopped weeping so much. (3)
6. More self-reliant. (1)
7. "Seems more sure of self." (1)
8. "Willing to try things." (1)

D. Communications

1. Improved speech. (3)
2. Vocabulary growth. (1)
3. Learned sentences. (3)

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D. Communications

1. Improved speech. (3)
2. Vocabulary growth. (1)
3. Learned sentences. (3)

E. Educational

1. Matching. (5)
2. Understands directions. (5)
3. Much school progress. (26)

The items of this list were mentioned by the teacher to the parents by informal letter and were, therefore, probably representative of specific areas of growth rather than the only improvement of the child.

In early spring, a news reporter who was interested in encouraging other schools to support early childhood education wrote a feature story on this program. The story, relatively accurate, emphasized the low socio-economic status of pupils in this class. As a result of this article, several parents voiced criticism of the program. Worthy of note is the fact that this criticism came from parents who were in the upper socio-economic group of the families served. The parents did not appreciate the implication that all children in the class were lacking in language skills. As a result, some criticism was directed to the teacher and to other school officials.

In general, goals of this phase of the project were achieved. However, it should be pointed out that a longer school day might have produced better results, and that attendance should be watched more closely. The tendency of children in this class was to miss several days after an illness, while other children would return to school immediately. Also, it would seem advisable for the school to seek a more firm commitment from parents with regularly scheduled conferences. Many observers visited the pre-kindergarten class during the year. Without exception, these visitors noted the mutual respect, the pleasant surroundings and the cheerful, non-condemning attitude of the teacher. This atmosphere should be a goal of future programs.

9. Mr. Pathfinder. When Dr. Sam Shepard, Jr. of St. Louis visited the inservice workshop in July, 1965, he recommended a program which would encourage children in areas of achievement and thus build self-concept. He played tapes of his Banniker District radio program, Mr. Achiever, and he told of the success of this program. One member of the Scarboro Elementary School staff recommended a program for this project which would feature a mythical character known as Mr. Pathfinder. This character, it was suggested, would symbolize much of the Daniel Boone - Davy Crockett lore of this region, and would present taped programs to each classroom. These programs included interviews with outstanding Negroes, successful Oak Ridgers and achieving students.

An extensive, well-planned publicity program was started to arouse curiosity, and children drew pictures of Mr. Pathfinder. Many children made guesses as to who this person was and several wrote letters of inquiry. The program seemed to be operating on a sound basis until several faculty members expressed concern over the amount of time that would be required to follow-up the program. Soon it was impossible to arouse interest in Mr. Pathfinder, teachers would not work on the program and administrative support at the school was absent. An interesting phenomenon was noted, those teachers who had so strongly supported the idea presented by Dr. Shepard were opposed to this idea when promoted by a member of their own staff. Thus, Mr. Pathfinder never really got beyond the planning stages.

Nevertheless, throughout the year letters were written to children who succeeded in any area. If a teacher spoke of a child's improved attitudes, of his leadership ability, or of some special achievement, a letter was mailed to the child. These letters were unquestionably an excellent investment. Parents have often commented on how much they appreciate the special interest shown by the schools, and the children have often reported the letters are being kept.

With stronger administrative support at the school level, a program similar to the one planned might fill a need in this and other programs.

10. The Thurstone Project. Any educator who might have visited the kindergarten in Scarboro School could have quickly analyzed

some of the problems here. In the kindergarten program there was adequate space, a small enrollment and excellent equipment, but there was no planned sequence which provided structure. An attempt was made by project personnel to articulate the pre-kindergarten, kindergarten and first grade programs. However, it was impossible to bring about a close working relationship. The children who had been promoted to first grade did not want to return to the kindergarten room, nor did the teacher desire to have these children return. After all, those pupils who were considered too immature for first grade had spent a year in this room and were well known there. Therefore, some program was desperately needed.

Dr. Thelma Thurstone came to Oak Ridge as a consultant. She recommended a program which would utilize the materials produced by Science Research Associates and called The Red Book, The Blue Book, and The Green Book. These materials were developed for schools in Chicago in the early 1940's when the Thurstones, then with the University of Chicago, were asked to provide structured programs that would educate children in those skills most needed to enable the child to succeed in school.

Dr. Thurstone recommended that several schools might well participate in an experimental program which would enable Oak Ridge to evaluate the usefulness of these materials. Three schools were selected for the program - Scarboro, Highland View and Elm Grove. It was agreed that the Primary Mental Abilities Test would be administered to kindergarten and first grade pupils in the Fall 1965, the Thurstone materials would be used during the year, and the Primary Mental Abilities Test would be readministered in Spring 1966.

Dr. Thurstone visited Oak Ridge in October. She demonstrated standardization procedures for administration of the Primary Mental Abilities Test (PMA) and explained the use of the language development materials. The Red, Blue and Green Books were used with the first grade pupils at Scarboro School where the mean gain in total quotient points (IQ) was 22.31. The mean score for this group in November, 1965 was 76.81 and the model score was 50. In April, 1966 the mean was 99 and the mode was 99. The Red Book and The Blue Book were used in the kindergarten where the mean gain in ability quotient points was 21.08. Total scores were raised in each grade with the exception of the kindergarten at Highland View School where the loss was .88.

The PMA was administered at Pine Valley, Willow Brook and Woodland Schools in both the fall and spring so that other schools could be compared to those using the SRA materials. The gains in these schools ranged from 4.65 points to 11.9. In no case was the mean change as notable as with the Scarboro Elementary School kindergarten and the first grade. Tables III, IV, V, VI and VII are tabulations of both raw score and derived quotients for the experimental and control groups.

Several speculations are possible from this phase of the project. One might assume that in all cases the scores would increase under regular teaching as is demonstrated by the Woodland and Willow Brook first grades. However, the magnitude of change is far greater with children at Scarboro where individual changes of at least 40 points were not unusual. It can be assumed that some children in each school did not have the maturity to take the test at the beginning of school and that they had this maturity nine months later. If this be true, one might also speculate that those skills needed for successfully taking this test are identical to those needed for success in school, and that kindergartens and first grades did teach these abilities. It is not within the scope of this report to deal with the theoretical basis for those mental abilities or traits assessed by the PMA, but, since L. L. Thurstone fathered factor analysis, taught it to Guilford and others, one assumes his factors are real and that the SRA materials did offer assistance in developing these factors in children. Aside from the theoretical discussion is the question of how the materials served the teacher.

The materials did add structure to the kindergarten program which was under consideration and they gave the teacher a guide as to

TABLE III

RAW SCORES AND DERIVED QUOTIENTS FOR TOTAL SCORES ON THE PRIMARY MENTAL ABILITIES TEST, FALL 1965 AND SPRING 1966

		EXPERIMENTAL*									CONTROL					
		ELM GROVE			HIGHLAND VIEW				SCARBORO		PINE VALLEY	WILLOW BROOK			WOODLAND	
		Kin.	First	First	Kin.	Kin.	First	First	Kin.	First	First	First	First	First	First	First
Fall	Raw	73.03	105.17	94.72	61.52	77.29	88.45	90.43	34.67	64.59	97.90	100.54	94.67	93.80	96.20	99.60
	IQ	111.62	111.94	103.28	99.03	111.12	97.80	98.28	69.75	76.94	110.58	108.85	102.56	105.95	105.00	106.48
Spring	Raw	95.08	117.35	113.40	89.30	94.00	108.95	109.19	68.42	99.46	113.38	118.50	114.78	114.45	115.96	113.72
	IQ	115.37	120.35	113.96	107.33	110.23	107.75	107.76	90.85	99.25	115.24	122.50	113.44	117.85	118.16	112.16
Diff.	Raw	22.01	12.18	18.68	27.79	16.71	20.50	18.76	33.75	34.87	15.48	17.96	20.61	20.65	19.76	14.12
	IQ	3.75	8.41	10.68	8.30	-.88	9.95	9.48	21.08	22.31	4.65	13.65	10.89	11.90	13.16	5.68

*Experimental groups used language development materials published by Science Research Associates.

TABLE IV

RAW SCORES AND DERIVED QUOTIENTS ON THE VERBAL SCALE OF PRIMARY MENTAL ABILITIES TEST, FALL 1965 AND SPRING 1966

		EXPERIMENTAL*									CONTROL					
		ELM GROVE			HIGHLAND VIEW				SCARBORO		PINE VALLEY	WILLOW BROOK			WOODLAND	
		Kin.	First	First	Kin.	Kin.	First	First	Kin.	First	First	First	First	First	First	First
Fall	Raw	31.90	40.47	38.44	29.48	32.88	35.65	37.09	21.96	27.78	38.93	40.08	38.56	38.55	37.60	38.60
	IQ	107.70	107.1	103.48	100.9	105.55	98.05	100.00	89.83	82.75	107.48	107.77	104.39	106.30	101.80	103.80
Spring	Raw	38.52	45.00	43.16	37.15	37.70	41.70	41.23	29.42	40.03	43.38	46.38	43.67	44.50	44.52	43.68
	IQ	112.95	116.3	108.32	107.0	107.76	104.85	103.04	93.50	101.90	111.34	123.46	108.89	114.65	114.68	79.26
Diff.	Raw	6.62	4.53	4.72	7.67	4.82	6.05	4.14	7.46	12.25	4.45	6.31	5.11	5.95	6.92	5.08
	IQ	5.25	9.17	4.84	6.09	2.23	6.80	3.04	3.67	19.15	3.86	15.69	4.5	8.35	12.88	7.16

*Experimental groups used language development materials published by Science Research Associates.

TABLE V

RAW SCORES AND DERIVED QUOTIENTS ON THE PERCEPTUAL SCALE OF PRIMARY MENTAL ABILITIES TEST, FALL 1965 AND SPRING 1966

		EXPERIMENTAL*									CONTROL					
		ELM GROVE			HIGHLAND VIEW				SCARBORO		PINE VALLEY	WILLOW BROOK			WOODLAND	
		Kin.	First	First	Kin.	Kin.	First	First	Kin.	First	First	First	First	First	First	First
Fall	Raw	17.57	24.06	18.36	11.64	18.88	17.40	15.90	6.08	13.28	22.41	20.62	19.83	19.00	19.12	20.80
	IQ	115.42	111.5	98.16	101.2	113.9	94.95	92.09	89.33	88.28	111.86	104.04	101.00	103.30	99.92	102.68
Spring	Raw	21.30	26.88	25.36	20.15	20.18	23.50	24.90	15.67	22.59	25.55	26.54	26.56	25.30	25.96	25.52
	IQ	113.82	117.7	113.20	109.7	108.1	103.95	109.61	102.58	101.15	112.10	117.31	115.67	112.10	113.08	109.92
Diff.	Raw	3.73	2.82	7.00	8.51	1.29	6.10	9.00	9.58	9.31	3.14	5.92	6.72	6.30	6.84	4.72
	IQ	-1.55	6.24	15.04	8.45	-5.82	9.00	17.52	13.25	12.87	.24	13.54	14.67	8.8	13.16	7.24

*Experimental groups used language development materials published by Science Research Associates.

TABLE VI

RAW SCORES AND DERIVED QUOTIENTS ON THE NUMERICAL SCALE OF PRIMARY MENTAL ABILITIES TEST
FALL 1965 AND SPRING 1966

		EXPERIMENTAL*									CONTROL					
		ELM GROVE			HIGHLAND VIEW				SCARBORO		PINE VALLEY	WILLOW BROOK			WOODLAND	
		Kin.	First	First	Kin.	Kin.	First	First	Kin.	First	First	First	First	First	First	First
Fall	Raw	10.87	20.94	20.40	9.88	12.94	18.80	16.14	5.66	12.34	19.65	22.15	18.94	18.90	20.20	21.92
	IQ	102.60	105.88	104.72	97.73	104.1	100.35	92.66	87.58	84.78	105.31	110.85	100.28	105.35	103.96	109.52
Spring	Raw	17.05	23.76	24.64	15.52	18.41	22.85	22.47	13.79	20.28	23.34	24.92	23.72	24.00	24.44	24.12
	IQ	106.42	106.94	112.24	100.63	108.8	103.80	101.19	19.29	96.34	106.69	113.35	108.83	111.00	110.28	108.72
Diff.	Raw	6.18	2.82	4.24	5.64	5.47	4.05	6.33	8.13	7.94	3.69	2.77	4.78	5.10	4.24	2.20
	IQ	3.82	1.06	7.52	2.91	4.71	3.45	8.52	11.71	11.56	1.38	2.50	8.56	5.65	6.32	-.80

*Experimental groups used language development materials published by Science Research Associates.

TABLE VII

RAW SCORES AND DERIVED QUOTIENTS ON THE SPATIAL SCALE OF PRIMARY MENTAL ABILITIES TEST, FALL 1965 AND SPRING 1966

		EXPERIMENTAL*									CONTROL						
		ELM GROVE			HIGHLAND VIEW				SCARBORO		PINE VALLEY	WILLOW BROOK			WOODLAND		
		Kin.	First	First	Kin.	Kin.	First	First	Kin.	First	First	First	First	First	First	First
Fall	Raw	12.57	19.82	17.52	10.48	12.59	16.50	18.09	1.92	11.50	16.90	17.69	18.17	17.35	19.04	17.96
	IQ	108.00	111.76	105.48	100.5	103.7	100.95	107.95	75.38	86.87	104.55	104.65	106.67	107.20	111.04	105.08
Spring	Raw	18.25	21.70	20.64	16.48	17.12	20.90	20.61	10.38	16.59	21.10	20.65	20.83	20.65	21.28	20.40
	IQ	116.75	116.64	111.68	107.7	108.4	111.70	109.85	91.96	94.46	112.96	109.92	108.89	113.90	113.36	106.76
Diff.	Raw	5.68	1.88	3.12	6.00	4.53	4.4	2.52	8.46	5.09	4.21	2.96	2.67	3.3	2.24	2.44
	IQ	8.75	4.88	6.20	7.21	4.71	10.75	1.90	16.58	7.59	8.41	5.27	2.22	6.7	2.32	1.68

*Experimental groups used language development materials published by Science Research Associates.

how to teach specific abilities. In all cases, teachers reported that the materials provided activities of a varied nature that were interesting to the children. They also reported that the children liked the materials and enjoyed using them. Results from this phase of the program were so gratifying that the teachers highly recommend the materials. If the scores from Scarboro School, where all three books (Red, Blue and Green) were used are indicative of results to be expected, one might recommend these materials to all schools interested in a structured program for children who come to school with disadvantages. One outstanding feature is that the materials specify the skill to be taught and thus help the teacher to understand this skill.

Thirty-seven children enrolled for the first grade at Scarboro School. It was well-known and generally agreed that this was too many children for one teacher to educate effectively. However, with special provisions for pre-kindergarten, kindergarten, reading, speech, library and secretary, it was not possible to employ additional teachers. At first an attempt was made to alleviate some stress by moving the children considered less mature to the kindergarten teacher. This move was altogether ineffective, since the kindergarten teacher did not want children to remain in her class for the full day when they had been problems the previous year. The children, knowing they had been "promoted" rejected the idea of coming back to the same room and teacher, and the parents came to school to voice concern.

It was suggested that two groups be formed from among the first graders. One group, the least mature children, came to school at 8:50 a.m. and remained at school until 1:30 p.m. The second group reported for school at 10:30 and went home at 3:30. The schedule change made it possible for the teacher to have part of her class for 1-1/2 hours with the more mature children meeting later in the day. The arrangement worked well, especially in the early part of the school year. A consultant was employed to help the teacher with the large group. While the usual schedule of the first grade is until 2:30 p.m., the additional hour of instruction proved worthwhile. It should also be pointed out that these children had special instruction in music and art, they had a regular library period and they had services of the speech clinician. Two groups of these children were taught by the special reading teacher during the last half of the school year.

At the end of the year, fourteen children from this group were reading at a level consistent with beginning second grade; eight were slightly below level; and thirteen children were placed in a special program which provided for growth to continue throughout the summer.

Additionally, Richard Kornder, a student at the University of Tennessee, tabulated all responses to items of the PMA after it was administered for this project. An item analysis was made to ascertain if there were questions on this test that appeared to discriminate among the children by race. With intelligence scores controlled, only one item of the test was found to separate Negro from non-Negro children at near significance level. A larger number of items than this would be expected to so discriminate if chance only were operating. Therefore, it was concluded that the PMA is a sound instrument for use with these disadvantaged Negro children. This is not to say that the test does measure intelligence, however, one cannot but agree that those children in this study who changed in school more than would be expected also improved more than expected in test performance.

11. Home-School Coordinator. Studies indicate that children from the impoverished physical and social environment bring attitudes, expectations, and motivations to the school which are often different from, and which may conflict with, the values of the school. The home environment has often been studied as a means of understanding factors which influence development of children. These studies show the home as the single most important influence on intellectual and emotional development of children, particularly during the preschool years. Thus, interactions between school and home must be promoted if the school is to enrich, broaden, and raise the level of performance of most of its pupils. To

assist in promoting a healthy relationship between home and school, the position of Home-School Coordinator was created for this project.

The original proposal suggested that a person be employed to work with parents and families as they encountered school problems. The authors envisioned a situation in which homes would be visited by personnel from the school often enough to promote a growing relationship between home and school. It was considered that such a person would visit the home when problems arose, but, more significantly, would interpret aims of school to the home and wishes of parents to the school. No guidelines were available since the proposed position seemed to be a new idea. Thus, this position took form as the project developed.

The Home-School Coordinator was to serve the two schools involved in the project; Scarboro Elementary with 256 Negro students and Robertsville Junior High School with approximately 950 students (of which 118 were Negro). Because a high percentage of the disadvantaged students came from the Negro population, the Home-School Coordinator concentrated her efforts in the Scarboro community. It was found that the 374 Negro students in these two schools came from 169 homes. During the school year, the Home-School Coordinator visited in the homes of approximately 75% of these students. Most of the homes were visited more than once. In some cases, as many as 15 visits were made. Families not receiving a home visit became familiar with project personnel through group meetings, activities, and other phases of the program.

The purpose of visits to the homes were many and varied. These included:

1. Discussion of placement and progress of children in the school.
2. Emphasis and encouragement for school attendance.
3. Interpretation to the parents of grades, test results, classroom activities.
4. Discussion of disciplinary and behavior problems and interpretation of school action.
5. Discussion and suggestions for assisting children with their school work at home.
6. Setting up parent-teacher conferences, parent-school administration conferences and/or appointments with local agencies for specific needs.
7. Notifying and encouraging parents to attend specific meetings, discussion groups and parent meetings.
8. Conducting a survey of community to obtain information regarding educational and training needs with the goal of establishing a state-financed training center for certain employment positions.

9. Obtaining birth certificates, family records, and such in order to complete school records.

10. Working with the parents to secure food or clothing to assure the physical well-being of the children in the home.

11. Providing information and encouragement for parents to attend and enroll in basic education classes through the Adult Education Program.

12. Assisting parents with problems of health and sanitation.

13. Counseling with the parents and unwed girls who dropped out of school because of pregnancy.

14. Often an occasional visit to a home just "to see how things are getting along." There seem to be much value in these impromptu visits to cement relations and earn the confidence of the parents.

15. Sharing with the parents some good report, achievement, or accomplishment of the child. It was found these "positive" visits negated the attitude of parents that "a contact from the school means trouble at school."

Other activities of the Home-School Coordinator included:

1. Locating and registering all the children in the community who were eligible for the 1965-66 pre-kindergarten class. Once these children were located, each home was visited and parents informed of

the purposes and activities of the class. Since attendance at the class was voluntary, it was important that the parents understand the reasons for this class and that they give permission for their child to attend. All children were contacted and registered for the class.

2. Conducting pre-school meetings for the parents of children who would be entering elementary school for the first time. This involved two meetings, parents of the pre-kindergarten children and parents of the kindergarten children. Parents of each of these groups were invited to attend a night meeting at the school with the school principal, the teacher of the class, the Project Director, and the Home-School Coordinator. Both meetings were well attended. At each meeting the parents were informed of the goals of the class, its purpose, and its organization. The parents entered into the discussion by asking questions and commenting on statements. Also, opportunity was given for parents to suggest topics and activities for future parent groups such as "What can a parent do to encourage his child to express himself well enough to be understood both in class and at home? " or "What can a parent do to overcome the apparent shyness or hesitancy of the child to express himself? "

3. Conducting a pre-school meeting with the parents of the Negro children attending Robertsville Junior High School. These parents met with the school principal, guidance counselor, four teachers representing

various subject departments, the Project Director, and Home-School Coordinator. Approximately 50 parents of the 118 students attended the meeting and contributed to the discussion of the junior high program and the emphasis the project would have at this level.

4. Early days of the school year were spent in locating children who had not appeared at school. Many of these were not attending because of lack of clothing. By working with the various appropriate agencies, clothing was secured and school attendance achieved.

5. Soon after school started, the public health department declared an epidemic of impetigo in the community. Because of the vast number of children and the homes involved, parent meetings were organized and the public health officials demonstrated the correct technique to use in healing the infection. Medications were distributed to the families with careful directions. The Home-School Coordinator assisted the health department in locating new cases, checking to see if directions were followed, distributing medical items, and working with parents of children suspended from school until healing occurred.

6. Encouraging and promoting grade-level parent meetings. Each teacher was urged to organize the parents of her class, as small group meetings have been found to be of the most success in attracting the parents. Some teachers worked with the Home-School Coordinator

in promoting attendance at these meetings and planning the program for the meeting. The common bond the teacher and the parent shared in educating the child was a cohesive factor in these parent groups. One of these groups circulated and filed a petition for low-cost housing and another group discussed job opportunities and training requirements.

7. Organizing and promoting parent meetings concerning topics of interest. The most successful meeting of this type was a class for "Modern Math for Parents." This class met for several months during the school year. A second series of meetings were concerning Home Managing. Topics such as meal planning, nutrition, and budgeting were discussed and led by a home economist.

8. Enlisting parents' consent and attendance at the cultural activities sponsored by the school. These included performance of the "Music Man", the ballet, and a spring Children's Concert. Free transportation was provided for both parents and students at these performances with much encouragement offered to "go with your child."

9. Visiting in the homes of children who would be in special summer programs, those who have special placement, and the incoming (1966-67) four-year-olds.

10. Assisted with the Study Center established at Scarboro School.

11. Planning and promoting a volunteer tutor program involving several high school students. The high school students worked with junior high Negro students in various academic areas, twice a week.

One major objective of the Home-School Coordinator was to establish contact with the community agencies that would be instrumental in fulfilling the needs of the parents, children and neighborhood concerned. Great benefit and guidance were received from these local agencies:

1. Oak Ridge Department of Public Health and Welfare
2. Local churches and church groups
3. Anderson County Welfare
4. Local unemployment office
5. Mental Health Center
6. Daniel Arthur Rehabilitation Center
7. Oak Ridge Police Department
8. Oak Ridge Adult Education Program
9. Thrift Shop
10. Holiday Bureau
11.. Local business establishments

The families with whom the project was concerned possessed most of the usual characteristics that describes the culturally deprived home--low income, many children, often one-parent homes, many relatives living in the same house, small living quarters, welfare cases. In addition to their impoverished socio-economic background, children were faced with the fact of living in a racially isolated community. The parents of these children were reluctant to visit the schools their children attended, reluctant to become involved in the activities of school-related organizations, and were generally shy with school personnel. Even in the light of these facts, the parents of these children were interested in seeing their children succeed in school and were quite concerned that their children were experiencing difficulties, socially and academically. The lack of skills, time, knowledge, and resources prevented these parents from being able to assist their children to adequately prepare them for school experiences or to complement and reinforce classroom activities. They want to assist but do not know how. To bridge the gap between home and school, it was necessary to reach the parents, interest them in the school program, and to assist them to realize that school and home share a common goal--that of educating their children.

Experiences with these families indicate that it is important for teachers and administrators to maintain a high estimate of parent potential. Parents, as well as the students, readily detect a condescending attitude or patronizing behavior on the part of school personnel. If such attitudes are present, they serve to alienate the parents. If, on the other hand, there is sincere acceptance on the part of the school personnel, the parents will accept direction and assistance.

Opportunities must be given these parents to express themselves and their opinions. Care must be taken to listen to these opinions if the parents have indicated that they are willing to relate their problems, ask their questions, or offer their suggestions. Of tremendous importance is the willingness to listen, to follow through with suggestions, and to make only promises that can be kept. If suggestions are given by the parents, these must, if at all possible, be implemented. One must be extremely careful not to indicate interest by listening, but must truly listen because one is interested.

Value is placed on visits to the home by classroom teachers and other school personnel. A visit to the home gives the teacher insight into the home conditions that influence the learning and behavior of the children. With this insight the teacher can formulate her program and meet the needs of each child. Both children and parents have responded to interest shown by school personnel through this person-to-person relationship. Enlisting parent participation in school activities has been achieved by personal contact. A written note or a telephone call is no substitute for a personal visit.

Parents displayed much interest in activities that would increase their ability to assist their child at home. Simple suggestions, such as listening to the child read or assisting in setting up a study time in the home, were readily accepted and in many instances were implemented. Simple skills and techniques that are effectively used by the classroom teacher should be shared with these parents, perhaps in small group meetings or individually.

The utilization of parents in planning and promoting activities, meetings, and programs was found to be the most important factor in the success of the parent program. Interest and concern must be expressed by these parents in a particular activity or topic, and leadership roles must be assumed by them in preparing for the activity. Experience taught that only subtle direction and guidance in planning should be offered by school personnel.

Evidence of the rapport established is clearly demonstrated in the Reid thesis. Parents of the pre-kindergarten children, a representative group, were asked to express their feelings about the Home-School Coordinator. All but one (27) of these parents had met and been visited by the Coordinator. These parents said they preferred a non-Negro person in this position, they felt no person could have done a better job, they felt the Coordinator had respect for them, and they said she visited oftener than the Negro teachers. Some of these parents (35.7%) said they would prefer more frequent visits, but they said this was impossible because of their working hours.

Phase B (Robertsville Junior High School)

1. Data were gathered from the cumulative folders of 976 children who attended Robertsville Junior High School in Fall 1965. These data included all information available on each child. Seventy-eight items of information were available on each pupil in the ninth grade. These data were made available, along with class rolls, to teachers for use in determining the activities to be planned during the summer workshop. (See Tables VIII, IX and X and Appendix D)

2. Twenty-five members of the Robertsville Junior High School staff participated in a five-weeks workshop (July 6 - August 6) designed to analyze the present curriculum and to plan for differentiated instruction at this level. The Principal of Robertsville Junior High School did not attend the workshop.

3. Consultants met with each subject-area department and made recommendations as to steps necessary for efficient teaching and for curriculum improvement.

TABLE VIII

METROPOLITAN ACHIEVEMENT TEST SCORES FOR RISING ROBERTSVILLE SEVENTH GRADE

METROPOLITAN 2/65 GRADE PLACEMENT 6.6

		Word Know.	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Non-Negro N=259	Range	3.0-10.+	3.0-10.+	3.0-10.+	3.0-10.+	3.3-10.+	4.6-10.+	4.0-10.+	3.0-10.+	3.0-10.+	3.0-10.+
	Mean	8.07	7.98	7.59	8.05	8.13	7.60	7.64	7.95	7.70	8.15
	Median	8.7	8.4	7.8	7.9	8.6	7.5	7.7	8.1	7.8	8.8
	Mode	10.+	10.+	10.+	10.+	10.+	10.+	10.+	10.+	10.+	10.+
	Below 6.6	78	75	75	60	66	76	85	72	78	62

		Word Know.	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Negro N=34	Range	-3.0-9.2	3.1-8.9	3.0-10.+	-3.0-8.5	3.3-8.6	4.3-7.0	3.0-7.1	-3.0-9.2	-3.0-10.+	3.2-8.1
	Mean	5.27	5.19	6.31	5.27	5.58	5.41	4.99	5.02	4.85	5.31
	Median	5.1	4.7	6.3	5.1	5.3	5.3	4.9	5.1	4.7	5.0
	Mode	4.9		5.5		5.3	5.3	5.1	5.1	4.7	
	Below 6.6	30	29	22	29	24	33	33	31	32	28

TABLE IX

METROPOLITAN ACHIEVEMENT TEST SCORES FOR RISING ROBERTSVILLE EIGHTH GRADE

METROPOLITAN 2/65 GRADE PLACEMENT 7.6

		Word Know.	Read-ing	Spell-ing	Lang.	Lang. St.Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Non-Negro N=270	Range	3.6-10+	3.6-10+	3.0-10+	-3.0-10.	-3.0-10+	5.2-10+	4.1-10+	4.1-10+	3.0-10.0	3.8-10.0
	Mean	8.49	8.4	8.31	8.32	8.53	8.23	8.56	8.28	8.33	8.72
	Median	9.1	8.7	8.7	8.7	9.4	8.0	8.3	8.6	8.0	8.8
	Mode	10.+	10.+	10.+	10.+	10.+	10.+	10.+	10.+	10.+	10.+
	Below 7.6	83	81	97	92	78	100	72	99	112	74

		Word Know.	Read-ing	Spell-ing	Lang	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Negro N=37	Range	2.2-10.+	3.0-9.2	3.0-10.+	3.4-10.+	3.3-10.+	4.4-10.+	3.7-9.4	3.1-10.+	3.0-10.+	2.4-8.7
	Mean	5.67	5.30	7.29	6.46	6.45	6.31	6.15	5.80	5.44	5.46
	Median	5.2	4.9	7.6	5.9	6.2	6.2	6.2	5.4	5.4	5.2
	Mode		3.5	10.+	5.9				3.8	5.4	5.2
	Below 7.6	29	32	17	25	29	31	30	33	35	35

TABLE X

LORGE-THORNDIKE SCORES FOR RISING ROBERTSVILLE EIGHTH GRADE

	NEGRO N=37	NON-NEGRO N=274	TOTAL N=311
Range	71-120	71-150	71-150
Mean	92.1	110.6	108.48
Median	92	112	110
Mode	93	112	112
Below 100	30	70	100

4. Consultants visited Oak Ridge during the year to assist as problems arose. Permanent consultants in reading, science, social studies, mathematics, materials and home economics visited the schools by invitation. Since the staff of the departmentalized junior high school had planned to work for individualization or differentiation of instruction, it was necessary for each department to develop materials independently.

English. A standing, systemwide English committee had spent time working on the English curriculum prior to initiation of this project. A status study had been completed and some work had been completed toward production of an articulated scope and sequence for teaching of English at the secondary level. The problem which faced the project was one of having teachers from Robertsville Junior High School cooperate with the systemwide committee while at the same time developing specific materials for use at Robertsville. This department, functioning as a committee, developed and adopted a statement of purpose and approach to teaching English. This included emphasis on teaching functional grammar through the inductive approach. The statement of this department is included with the sequence in Appendix E. The approach of the Robertsville English Department differed from that of the systemwide committee in that it emphasized mastery by the individual of functional English. The program, therefore, was much less traditional and much more functionally oriented.

Special provisions were made for English teachers to cooperate in the teaching of reading. Since the schedule was structured to provide for twenty-five minute French classes that took pupils from an English teacher, it was possible for the "free" teacher to assist other teachers with instruction in reading. A system similar to team teaching developed which permitted two teachers to share the assistance offered by an available teacher. In some cases pupils were grouped and moved to another room for a class in reading and in other cases the "free" teacher went into the classroom to assist with instruction. This system permitted English teachers to spend more time with advanced pupils and gave extra instruction to those having problems in reading.

Since Title I of the Elementary and Secondary Education Act provided funds for schools having a large percentage of disadvantaged pupils, it was possible to add two teachers of reading to the Robertsville staff after February. Two small lounges for teachers were converted into reading clinics where small group instruction was given in reading. A system of referral was proposed which made possible instruction of those pupils having handicaps in reading. Specific suggestions from this program are: (1) Groups should be kept small, (2) Boys and girls should be taught in separate groups, (3) Grade levels should not be crossed even though pupils read on identical levels, (4) Pupils reading together should, as much as possible, be on the same ability levels.

Neither of the teachers employed for this program was trained in teaching reading, nor were trained persons available. Therefore, consultants from this inservice project were utilized to assist the teachers in developing skills for reading instruction. The two programs complimented each other and each made possible better utilization of the other.

Two other phases of work by the English Department should be mentioned. This department developed an outstanding series of more than 200 transparencies for teaching English. Forty-nine of these transparencies are concerned with grammar, 31 with punctuation, 2 with composition and 11 with literature. They also developed tapes relating to reading and English usage. (See Appendix E for list of types) Special electronic equipment including cordless headsets that permits the student to hear himself speak were installed in one classroom. Tapes for use with this equipment were developed to teach grammar. For example, one tape gave practice in correct uses of the verb to be and included time for the student to repeat the correct sentences. This tape had a section related particularly to dialect problems of the Negro pupil. Workshop time and materials for development of these transparencies and tapes was provided by this project.

Social Studies. As previously mentioned, time during the summer workshop was spent in preparation of specific materials for teaching social studies. Slides, models, transparencies and guides were developed, but the need for articulation was obvious. The junior high school teachers were reluctant to plan for change in curriculum since they knew the expectations of the high school. There was general agreement that a statement of scope and sequence was badly needed but such could not be provided at the junior high level. Therefore, teachers serving on a systemwide committee were invited to join representatives from the Robertsville and Scarboro faculties to work toward a planned social studies program. The report of this committee which worked for the year with the permanent consultant to this project is included in Appendix F.

One innovation measure which developed from this phase of the project was the utilization of teachers who had traveled throughout Tennessee to teach Tennessee history. Three teachers had traveled in this State to take pictures for use with the antique texts available. (List of slides, Appendix F) Two of these teachers were utilized to teach the subject which was of special interest to them. It was hoped that these teachers could publish their materials, however, to date this has not been possible. Nor was it possible to get all teachers to use the materials that were collected. Some teachers, enjoying the security of the text, preferred to follow the book exclusively.

Science. Several problems were presented within the Science Department at the start of this project. Some teachers who were highly dedicated to specific areas within the field were reluctant to work closely with those trained in other areas, and instructional levels presented a problem. Because of the sophistication of this city in science, many pupils are far above norm in this subject. Therefore, schools are forced, by popular demand to offer excellent programs. This, however, places the teacher who faces the heterogeneous group of children in a difficult position. In fact, she faces a group which is probably bi-modal with most children high in achievement and others definitely below national norms.

Workshop time was spent aiming toward a unifying philosophy for the department, reviewing needs and developing materials that would facilitate instruction. Building materials were purchased for the department and one teacher constructed carrell-like booths for use by students. These booths provided spaces for individual student experimentation and for display of science materials.

Recommendations from the science teachers as they worked with their consultant included:

1. Remodeling and equipping science rooms with materials that will provide for more adequately meeting differential needs of students.

2. Implementation of an experimental Introductory Physical Science course at the ninth grade level.

3. Installation of a school weather station.

4. Request for permission to use land adjacent to the school for ecological study.

5. Provision for budgetary consideration which will enable teachers to secure needed small, consumable supplies.

6. Permission to start a greenhouse on the school property.

Consideration has been given to recommendations 1 - 4, but much work is needed in providing for recommendations 5 - 6.

Mathematics. Much workshop time was spent in preparation of transparencies for teaching mathematics and in production of Hayes Modern Mathematics materials for use during the year. A list of the transparencies produced is included in Appendix G. Because of resignations, late staffing and personnel transfers, much of the work in mathematics had to be done during the school year. The consultant in mathematics, a local teacher, spent time with the staff in solving problems as they arose. An extensive workshop was planned for Summer 1966 but to date this workshop has not been funded.

Allied Arts. It was generally agreed that the allied arts afford an excellent opportunity for success to children who have experienced academic failure. A music workbook was produced during the summer workshop but work was needed at all levels. Itenerate teachers move from school to school in Oak Ridge to teach music and art, and no supervision is offered in either subject. Because of this, pupils vary considerably in exposure to the arts and there is an absence of a philosophy for either subject. There was no interaction between groups of teachers. A consultant in the area of fine arts recommended early in the program that continued efforts to build meaningful programs in each individual art would be needless. Therefore, art and music personnel were included in a group and representatives from all schools were invited to participate with the Scarboro and Robertsville teachers and their consultant.

This group of teachers developed the statement of philosophy for the Oak Ridge Public Schools arts program which is included in Appendix H.

FINDINGS

The purpose of this portion of the report is to present data relative to the Curriculum Improvement Project. These data were collected during workshop sessions and through the school year. They represent performance of children in this project and can be generalized only to similar situations.

Phase A

Date were gathered on 234 pupils who attended Scarboro Elementary School in Fall 1965. Measures of central tendency and range of scores were computed by class and by grade for these pupils. Table XI contains scores on the Metropolitan Achievement Test. The mean, median, mode and range for these classes by grade level are presented in Table XI. This table shows that while only 12 pupils were performing below grade level in the second grade in 1961, 33 of these pupils were below national norms in reading when the class completed grade six. This table also shows that pupils in Scarboro Elementary School achieve below the national norm in the early grades and that the rate of achievement is slower than would be expected for these pupils. At each grade level, more and more pupils fall below the expected placement or below the national norm.

MEASURES OF CENTRAL T
TEST BATTERY SC

			Word Know.	Word Disc.	Reading	Spelling	Arithmetic	Battery
GRADE 7 1965-1966	N=35	RANGE	1.7-4.6	1.6-4.6	1.6-4.0	1.3-4.9	1.6-4.3	1.6-4.3
		MEAN	2.95	3.09	2.82	3.69	3.15	3.07
		MEDIAN	2.9	3.0	2.8	4.2	3.2	3.1
		MODE	3.1	3.4	3.3	4.7		3.4
		*BELOW	9	10	12	10	8	8
GRADE 6 1965-1966	N=42	RANGE	1.1-3.9	1.0-4.9	1.2-4.4	1.0-4.9	1.6-3.9	1.2-3.9
		MEAN	2.40	2.98	2.54	3.56	2.84	2.76
		MEDIAN	2.5	3.0	2.2	3.8	2.9	2.9
		MODE	2.9		2.2	4.9	2.8	3.2
		BELOW	20	15	24	11	12	14
GRADE 5 1965-1966	N=36	RANGE	1.0-4.9	1.5-4.9	1.6-4.2	1.1-4.9	1.3-4.9	1.5-4.9
		MEAN	2.4	3.17	2.4	3.5	2.68	2.76
		MEDIAN	2.3	3.0	2.2	3.8	2.8	2.9
		MODE	2.2	3.4	1.9	3.8	3.0	3.0
		BELOW	19	10	22	9	14	14
GRADE 4 1965-1966	N=32	RANGE	1.7-4.6	1.8-4.9	1.7-4.9	1.6-4.9	1.6-4.3	1.9-4.9
		MEAN	2.61	3.28	2.70	3.39	3.04	2.99
		MEDIAN	2.5	3.0	2.3	3.4	2.9	2.8
		MODE	1.8	3.2		4.9		
		BELOW	22	13	24	13	8	15
GRADE 3 1965-1966	N=39	RANGE	1.7-4.9	1.7-4.9	1.6-4.9	1.1-4.9	1.0-4.9	2.1-4.9
		MEAN	2.92	3.39	2.85	3.79	2.73	2.89
		MEDIAN	2.7	3.0	2.8	4.0	3.0	2.9
		MODE	2.7	2.6	2.1	4.9	3.2	3.0
		BELOW	17	13	17	13	15	16
GRADE 2 1965-1966	N=29	RANGE	1.6-4.9	1.1-4.9	1.6-4.9	1.0-4.4	1.1-4.1	
		MEAN	2.52	2.96	2.59	3.01	2.60	
		MEDIAN	2.2	2.95	2.35	2.65	2.3	
		MODE		3.6	1.7	4.2	2.0	
		BELOW	17	11	17	11	16	

Grade Placement 2.6

			Word Know.	Word Disc.	Reading	Spelling	Language	Arith. Comput.	Arith. Problem	Battery
GRADE 7 1965-1966	N=35	RANGE	1.3-5.7	2.1-5.5	1.9-4.4	1.8-7.9+	1.1-5.5	1.0-4.6	2.1-5.2	2.1-5.3
		MEAN	2.91	3.30	2.98	4.14	3.19	3.56	3.23	3.34
		MEDIAN	2.9	3.1	2.8	4.1	3.2	3.8	3.1	3.4
		MODE	2.9	2.6	2.7		3.2			3.9
		*BELOW	29	22	29	11	21	13	23	20
GRADE 6 1965-1966	N=42	RANGE	1.3-5.0	1.6-4.7	1.7-5.5	1.0-7.9	1.0-6.9	1.3-5.6	2.1-5.1	1.9-5.0
		MEAN	3.2	3.42	3.1	4.36	3.71	3.73	3.27	3.44
		MEDIAN	3.1	3.5	3.1	4.4	3.5	3.9	3.0	3.5
		MODE	2.9	3.7	3.0	6.5	3.2	3.7	2.7	3.7
		BELOW	27	21	28	15	19	14	28	21
GRADE 5 1965-1966	N=36	RANGE	1.4-7.6	2.1-7.9	2.0-7.9	2.0-7.9	1.1-7.9	2.1-6.7	1.8-6.0	2.2-7.9
		MEAN	3.13	3.45	3.54	4.4	3.42	3.51	3.21	3.5
		MEDIAN	2.8	3.0	3.4	4.0	3.1	3.0	2.8	3.1
		MODE	2.8		3.4	4.0		2.9	2.7	3.2
		BELOW	22	18	21	10	18	17	19	18
GRADE 4 1965-1966	N=32	RANGE	1.9-6.6	1.8-5.8	1.8-7.9	2.4-6.8	1.2-5.9	2.1-5.4	1.8-5.0	2.2-6.6
		MEAN	3.27	3.16	3.37	4.64	3.17	3.42	3.1	3.28
		MEDIAN	3.1	3.1	3.1	4.6	3.3	3.5	3.0	3.4
		MODE	3.1	3.1	3.1	4.6	3.3	3.5	2.7	
		BELOW	30	32	25	11	26	26	31	26
GRADE 3 1965-1966	N=39	RANGE	1.3-5.2	2.3-5.5	1.6-6.1	1.8-6.5	1.4-5.3	1.7-4.6	1.8-4.2	
		MEAN	3.25	3.69	3.34	4.03	3.11	3.27	3.01	
		MEDIAN	3.0	3.4	3.4	4.25	2.8	3.5	2.9	
		MODE	2.8		3.0/3.5	5.7	2.6	2.2/3.5	2.7	
		BELOW	25	20	26	14	27	23	28	

Grade Placement 3.6

			Word Know.	Word Disc.	Reading	Spelling	Language Total
GRADE 7 1965-1966	N=35	RANGE	2.8-5.9	2.3-6.1	2.3-7.9	2.4-7.9	2.4-7.9
		MEAN	4.11	3.98	3.85	5.29	4.92
		MEDIAN	3.8	3.9	3.7	5.0	4.6
		MODE	3.8	5.1	3.6	7.9	7.8
		*BELOW	24	24	28	9	16
GRADE 6 1965-1966	N=42	RANGE	1.6-5.6	2.2-6.1	1.9-6.3	1.6-7.9	1.5-7.9
		MEAN	3.81	4.3	4.05	5.61	4.41
		MEDIAN	3.8	4.4	4.0	1.3	4.0
		MODE	4.1	4.6	4.3		
		BELOW	29	21	31	13	22
GRADE 5 1965-1966	N=36	RANGE	1.8-7.6	2.4-6.5	1.8-7.9	1.5-7.9	1.0-7.9
		MEAN	3.9	3.96	3.83	4.77	3.91
		MEDIAN	3.6	3.6	3.5	4.8	4.0
		MODE	4.7	3.5	3.6	5.5	2.6
		BELOW	24	24	27	15	21
GRADE 4 1965-1966	N=32	RANGE	2.1-7.9	2.2-6.5	2.0-7.7	2.9-7.9	2.0-7.8
		MEAN	3.98	4.06	3.75	4.96	4.12
		MEDIAN	3.8	3.9	3.2	5.0	3.6
		MODE	2.8	3.9			2.6/3.5
		BELOW	22	21	27	14	21

Grade Placement

*Below indicates number of pupils below national norms.

TABLE XI

ENDENCY FOR METROPOLITAN ACHIEVEMENT
CORES OF SCARBORO PUPILS, 1961 - 1966

Arith. Comput.	Arith. Problem	Battery
1.9-7.9 4.43 4.2 21	2.2-5.2 3.86 3.7 5.0 24	2.4-6.1 4.18 4.2 23
1.9-7.9 4.34 3.9 3.9 24	2.1-6.8 3.98 3.8 29	1.5-6.7 4.15 4.1 25
2.0-6.7 3.9 3.6 3.3 24	2.1-6.8 3.78 3.4 3.4 27	2.1-6.8 3.88 3.7 3.7 25
1.9-5.6 3.78 3.7 24	2.3-6.0 3.51 3.1 2.8/3.1 27	

t 4.6

Word Know.	Reading	Spelling	Language	Language Stud. Sk.	Arith. Comput.	Arith. Problem	Soc. St. Inform.	Soc. St. Stud. Sk.	Science
2.6-6.6 4.29 4.3 4.7 31	2.6-7.1 4.41 4.2 3.5 28	2.6-9.8 5.27 5.0 3.9 20	2.6-8.7 4.67 4.4 3.9 27	2.6-9.4 4.61 4.3 3.6 28	3.6-6.5 4.91 4.9 26	2.6-6.5 4.8 4.9 25	2.6-7.0 4.40 4.3 27	2.6-6.1 4.20 4.1 31	3.2-7.0 4.73 4.7 29
3.0-7.1 4.51 4.3 32	3.0-7.1 4.1 4.2 3.0 31	3.0-10.0 5.81 6.0 3.0 16	3.0-7.9 5.12 5.0 26	3.0-7.0 4.63 4.3 30	3.0-7.0 4.97 4.9 22	3.0-6.6 4.7 4.9 4.6 29	3.0-6.6 4.29 3.9 3.0 32	3.0-6.6 4.2 4.1 4.1 36	3.0-6.6 4.56 4.6 4.6 34
3.0-10.0 4.65 4.2 3.0 28	3.0-10.0 4.84 4.4 4.2 26	3.4-10.0 5.75 5.3 19	3.0-9.4 5.31 4.7 3.5 21	3.0-10.0 5.34 4.5 3.8 24	3.8-7.6 5.09 5.0 4.15 27	3.0-5.4 3.74 3.9 3.0/3.85 35	3.0-10.0 4.60 4.4 3.0 30	3.0-8.3 4.49 4.1 3.8 31	3.0-9.8 4.8 4.4 4.4 32

Grade Placement 5.6

Word Know.	Reading	Spelling	Language	Language Stud. Sk.	Arith. Comput.	Arith. Problem	Soc. St. Inform.	Soc. St. Stud. Sk.	Science
3.0-9.2 5.27 5.1 4.9 30	3.1-8.9 5.19 4.7 29	3.0-10.+ 6.31 6.3 5.5 22	3.0-8.5 5.27 5.1 29	3.3-8.6 5.58 5.3 5.3 24	4.3-7.0 5.41 5.3 5.3 33	2.0-7.1 4.99 4.9 5.1 33	3.0-9.2 5.02 5.1 5.1 31	3.0-10.0 4.85 4.7 4.7 32	3.2-8 5.31 5.0 28
3.0-9.8 5.20 4.9 3.0 28	3.0-10.0 5.22 4.7 3.0 26	3.0-10.0 7.22 7.1 10.0 15	3.0-9.9 5.52 5.5 5.5 28	3.0-10.0 5.68 5.6 26	3.6-8.1 5.66 5.7 4.9/5.7 30	3.0-9.0 5.45 5.35 5.1/6.3 35	3.0-10.0 4.90 4.6 5.4 37	3.0-10.0 4.92 4.55 4.1 37	3.0-7 5.24 5.25 4.3/6. 36

Grade Placement 6.6

Analysis of data from other tests is included in Appendix B. These data clearly demonstrate a pattern of achievement which is slower than the national norm with intelligence scores for the group only slightly below 100. Lists of names and pupils achieving below the national norm were prepared from the data gathered at Scarboro School. These lists were given to teachers for use during the workshop. Each teacher was given her class roll for the coming year, and each was asked to spend some time preparing specific activities for her pupils.

Figures 1 - 9 show median performance in reading, language, spelling and arithmetic for all schools in Oak Ridge. These data reveal that reading, language and arithmetic achievement of pupils at Scarboro Elementary School is not only below national norm, but is far below expected performance in Oak Ridge. These data, while revealing some "slower-than-normal" development, do not show Scarboro pupils to be excessively slow. That is, the achievement of pupils in Oak Ridge (a select population) is above national norm while that of Scarboro pupils is below this norm.

One should remember that in finding a median score, a portion of the population (50%) must be below the median. The data clearly point up the necessity for compensatory education for pupils at Scarboro, and reveal an indication of cause for academic segregation.

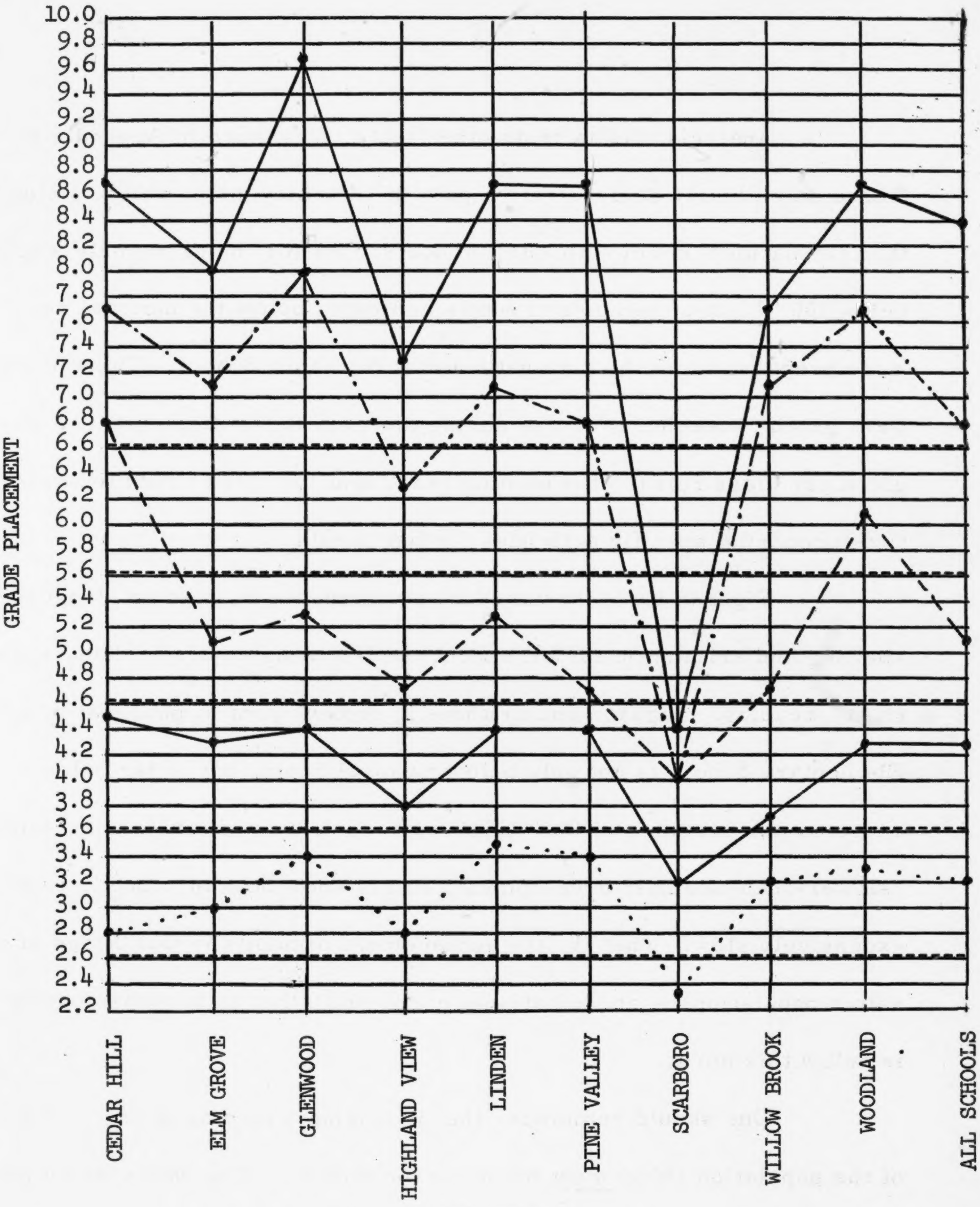

FIGURE 1

MEDIAN SCORES ON READING ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1963-1964

Grade 2 . . . .
Grade 3 ————————
Grade 4 - - - - - - -
Grade 5 - · - - - - -
Grade 6 ————————

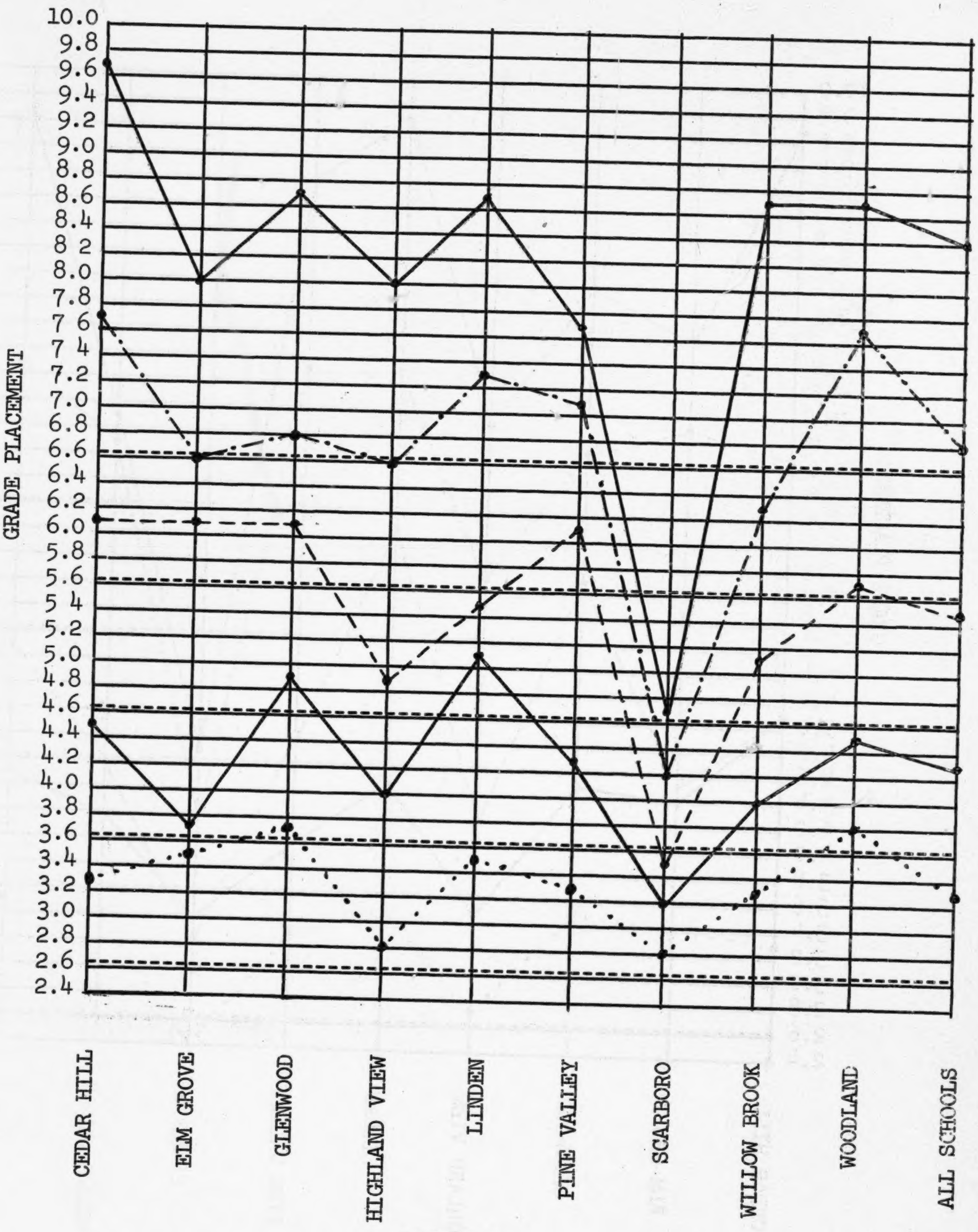

FIGURE 2

MEDIAN SCORES ON READING ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1964-1965

Grade 2 . . . .
Grade 3 ————————
Grade 4 - - - - - - - -
Grade 5 - . - . - . - .
Grade 6 ————————

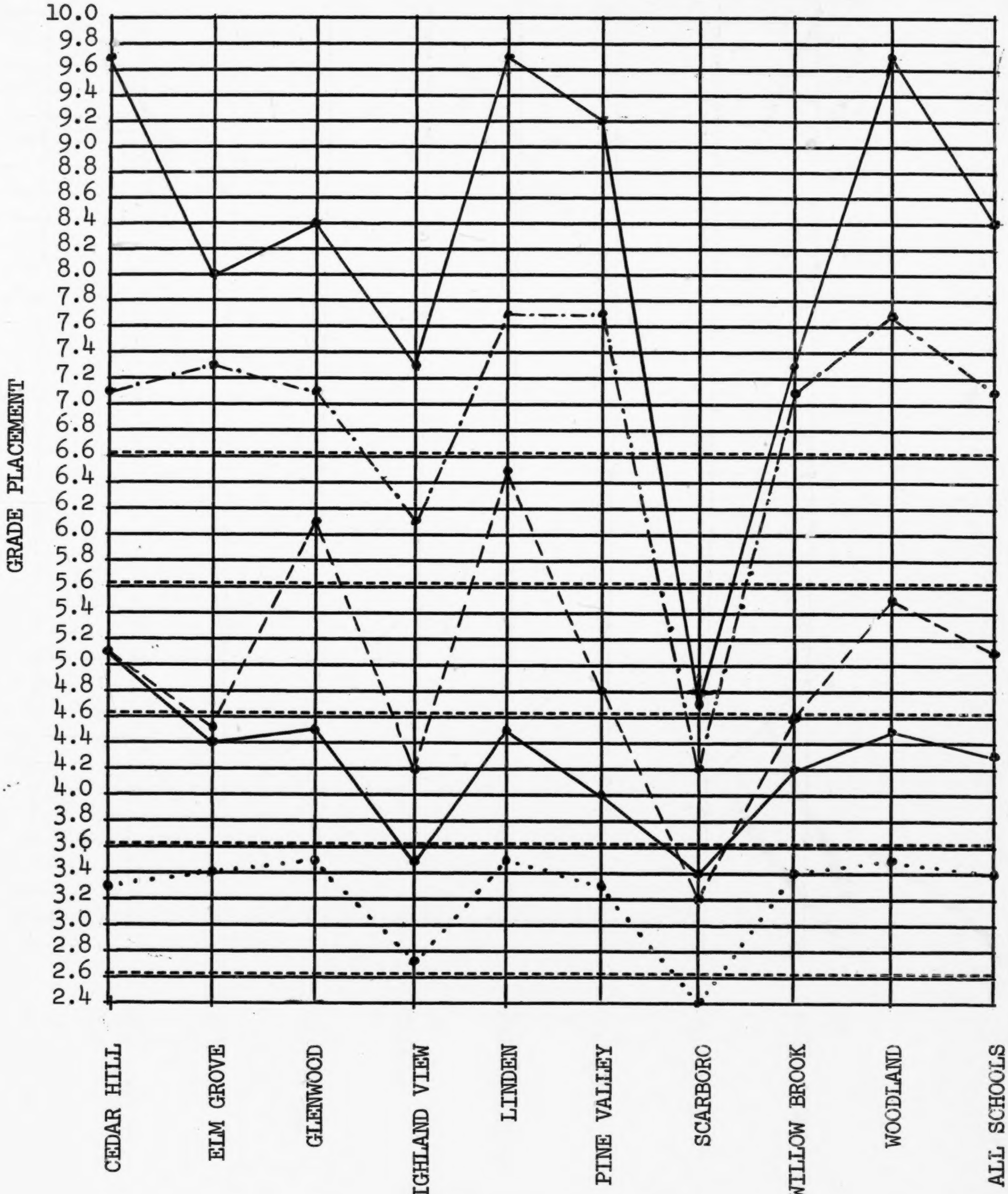

FIGURE 3

MEDIAN SCORES ON READING ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1965-1966

Grade 2 . . . .
Grade 3 ————————
Grade 4 - - - - - - -
Grade 5 - · - · - · -
Grade 6 ————————

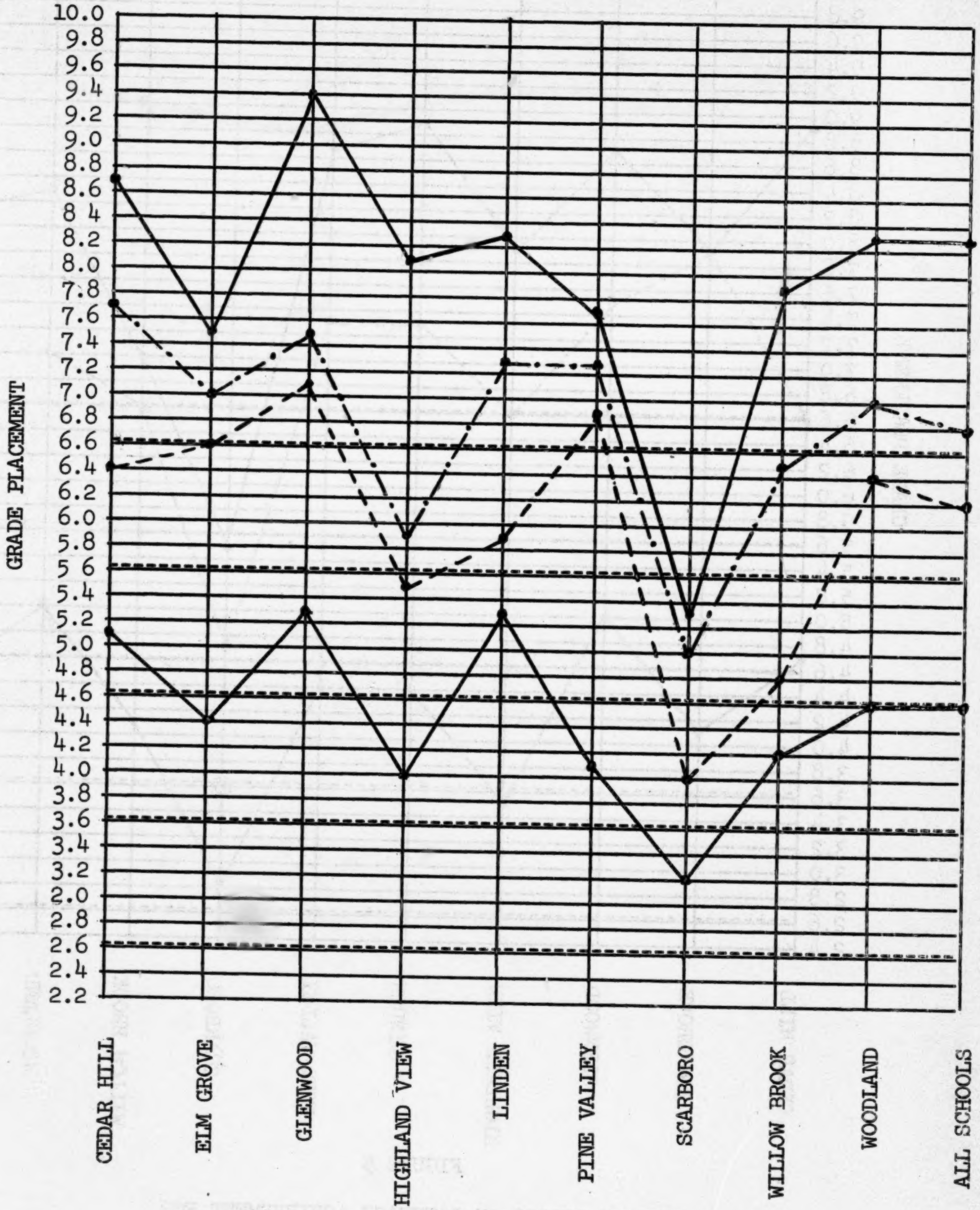

FIGURE 4

MEDIAN SCORES ON LANGUAGE ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1964-1965

Grade 3 ________
Grade 4 - - - - - - - -
Grade 5 - • - • - • -
Grade 6 ________

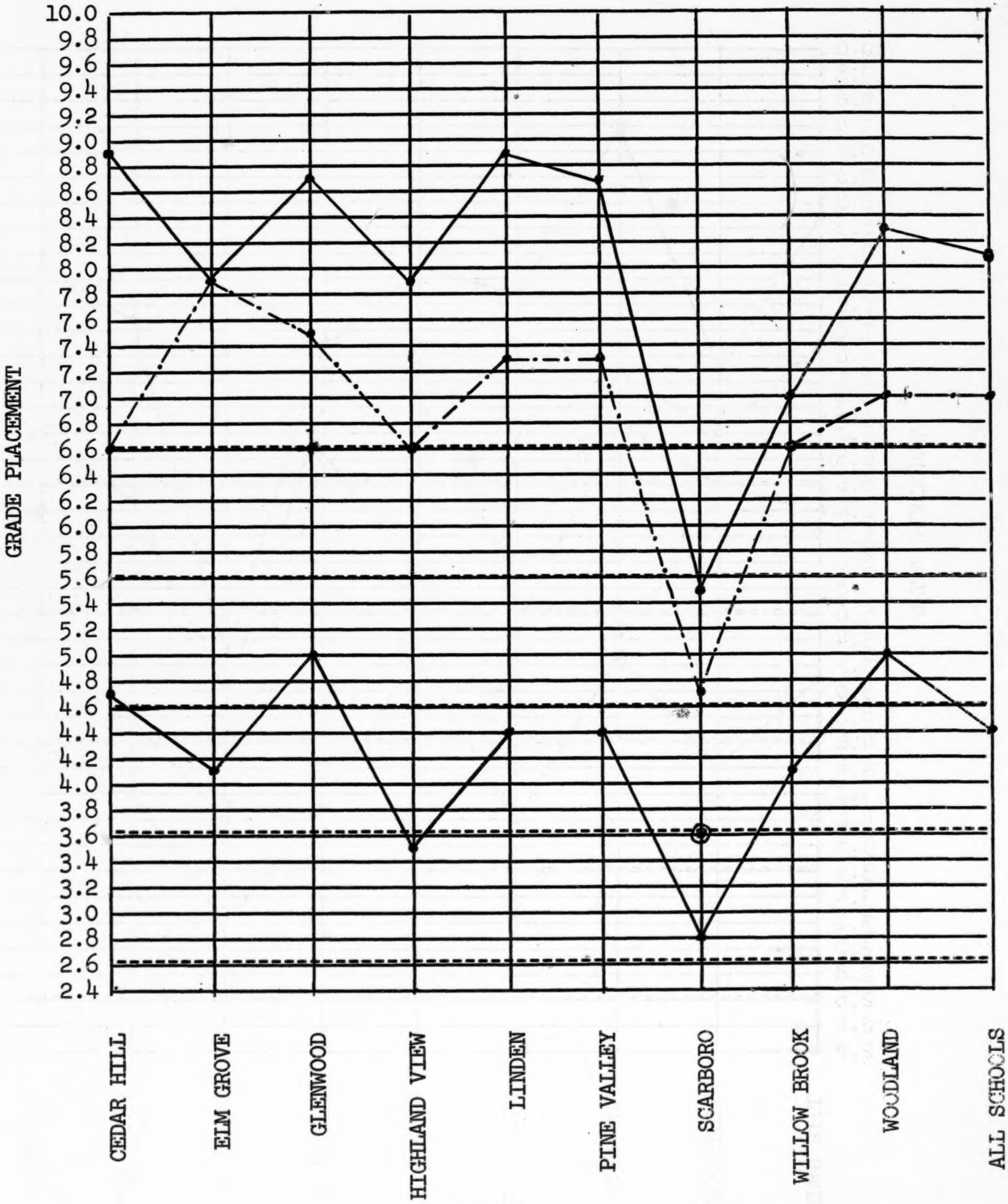

FIGURE 5

MEDIAN SCORES ON LANGUAGE ACHIEVEMENT FOR OAK RIDGE SCHOOLS, 1965-1966

Grade 3 ______________ Grade 5 - . - . - . -
Grade 4 ⊙ (Scarboro only) Grade 6 ______________

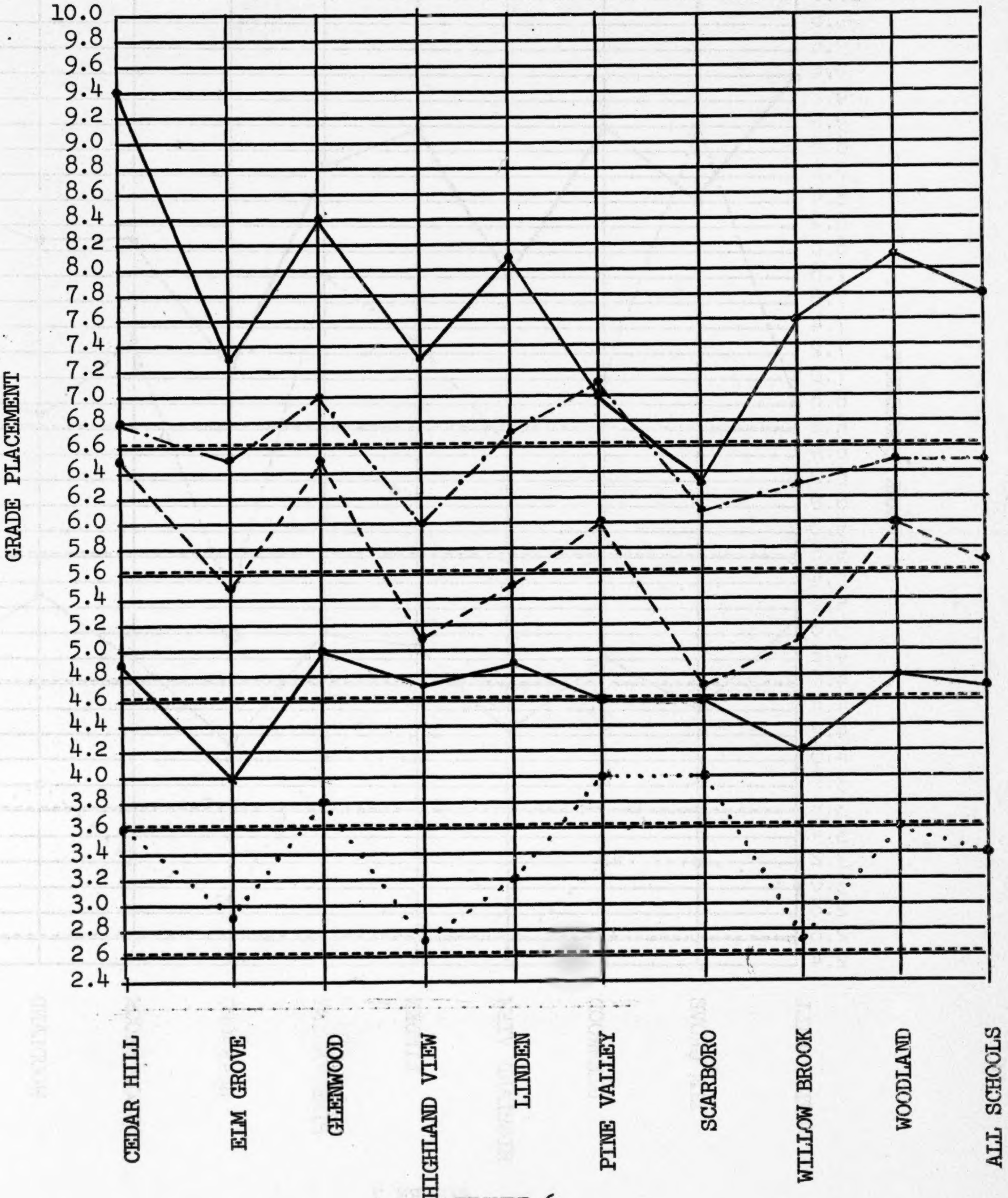

FIGURE 6

MEDIAN SCORES ON SPELLING ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1964-1965

Grade 2	. . . .	Grade 5	- . - . - . -
Grade 3	———————	Grade 6	———————
Grade 4	- - - - - - -		

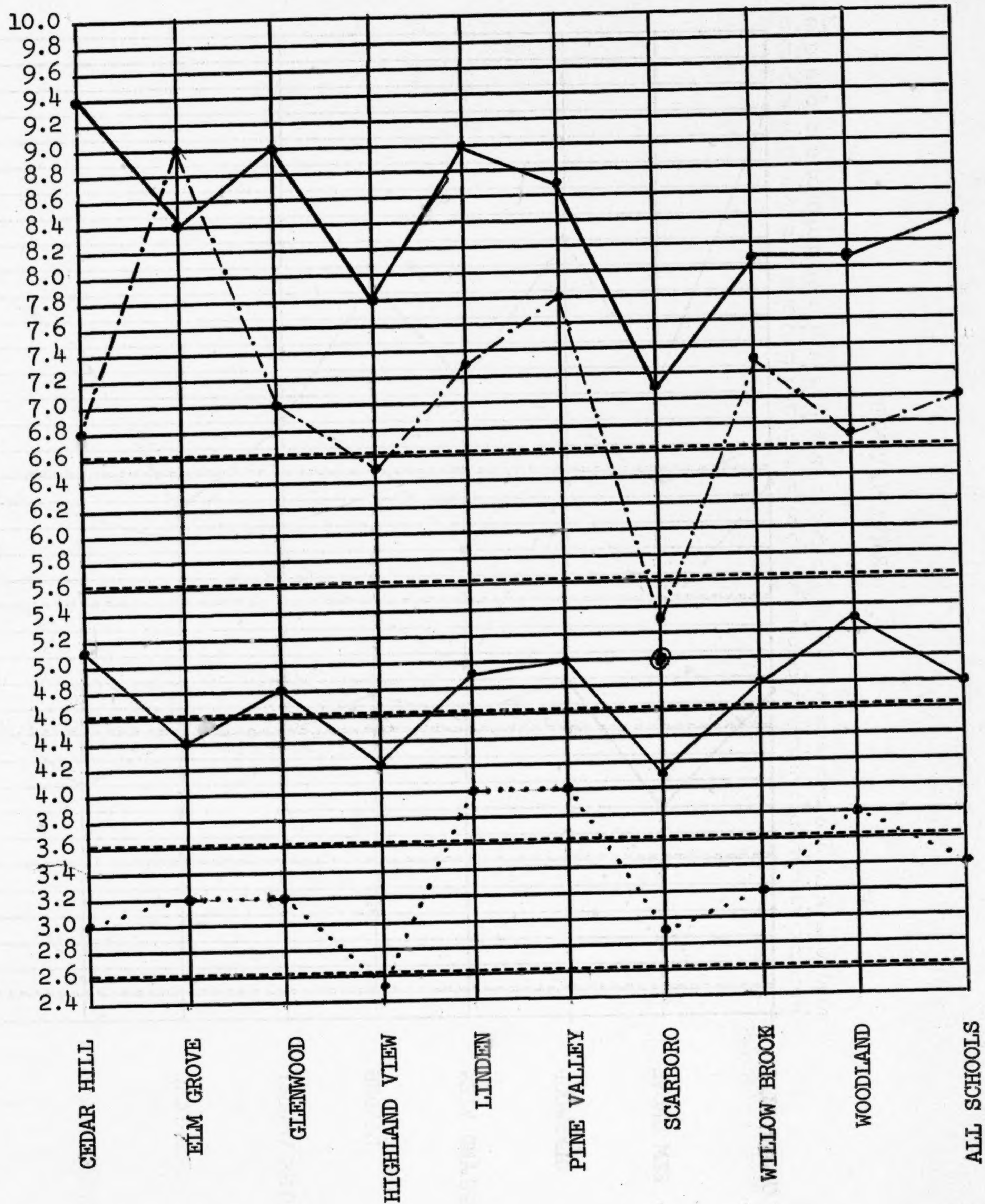

FIGURE 7

MEDIAN SCORES ON SPELLING ACHIEVEMENT FOR OAK RIDGE SCHOOLS, 1965-1966

Grade 2 . . . .
Grade 3 ———
Grade 4 ⊙ (Scarboro only)
Grade 5 - · - · - · -
Grade 6 ———

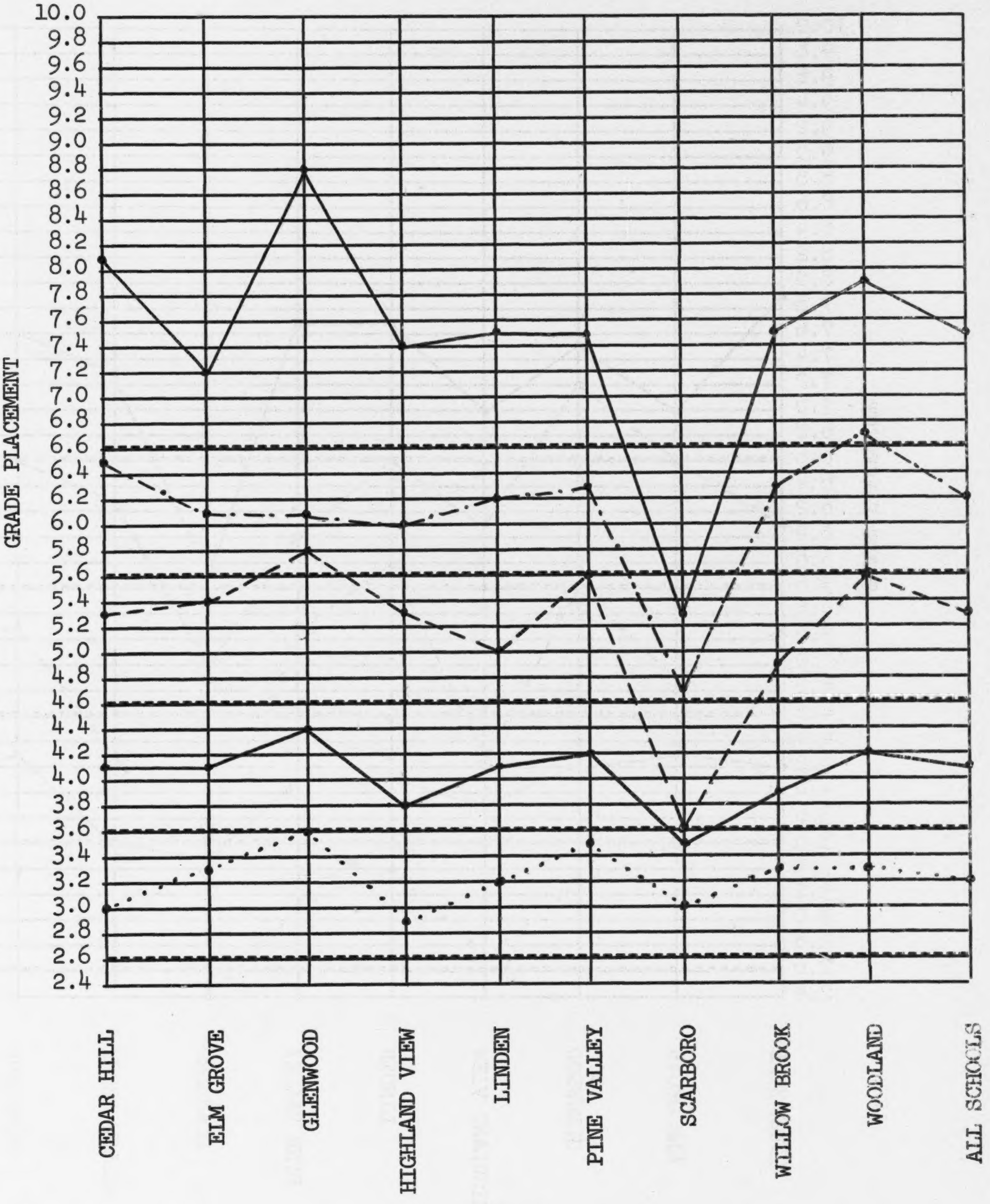

FIGURE 8

MEDIAN SCORES ON ARITHMETIC ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1964-1965

Grade 2 . . . .
Grade 3 ————————
Grade 4 - - - - - - -
Grade 5 - • - • - • -
Grade 6 ————————

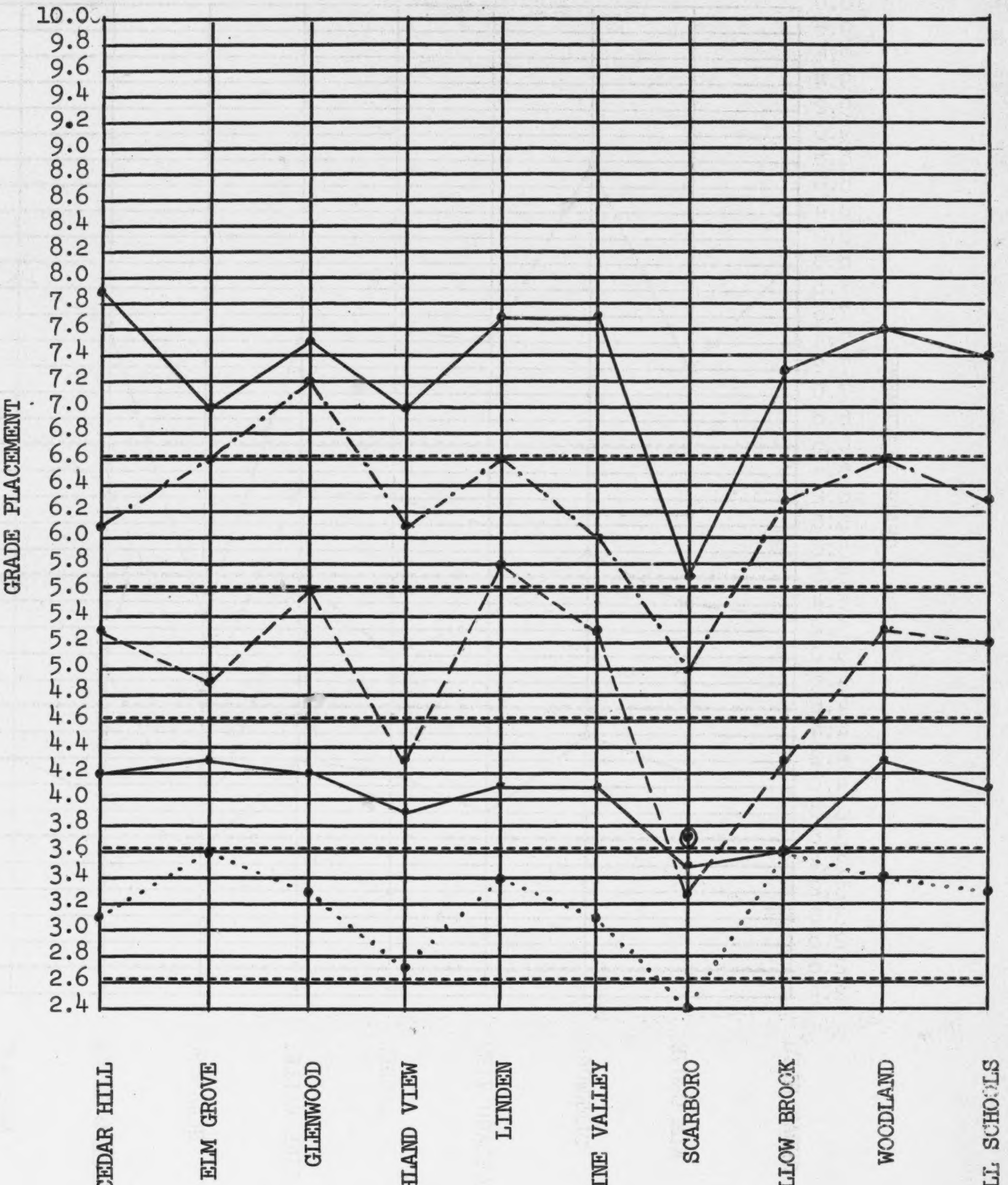

FIGURE 9

MEDIAN SCORES ON ARITHMETIC ACHIEVEMENT FOR
OAK RIDGE SCHOOLS, 1965-1966

● Scarboro Grade 4, Spring (cthers at Grade 4 are Fall)

Grade 2 . . . .
Grade 3 ————————
Grade 4 - - - - - - -
Grade 5 - • - • - • -
Grade 6 ————————

Figures 1 - 10 show the great need for special emphasis on efficient teaching at Scarboro and Robertsville, and they show that individualized or differentiated instruction is needed.

Figure 10 is a graphic presentation of the performance of pupils in the Scarboro Elementary School on the Metropolitan Achievement Test administered in February 1966. These scores do not differ significantly from mean scores for pupils in this school for previous years. In certain instances the scores do not show the expected increases, however, the reliability of the scores represented in this graph is probably higher than for previous years since the school psychologist and the elementary counselor were requested to administer this test. In previous years, each teacher had administered the test to pupils she had taught. Numerous authorities have noted that teachers have a tendency to unconsciously violate standardization. That standardization procedures were not followed in previous years is impossible to ascertain, however, there is no doubt that the 1966 administration represents a reliable assessment.

Phase B

Data were gathered on 976 pupils who attended Robertsville Junior High School in Fall 1965. The portion of data analysis was completed which would provide a sound basis for planning during the summer workshop, and findings were presented in a progress report dated August 16, 1965.

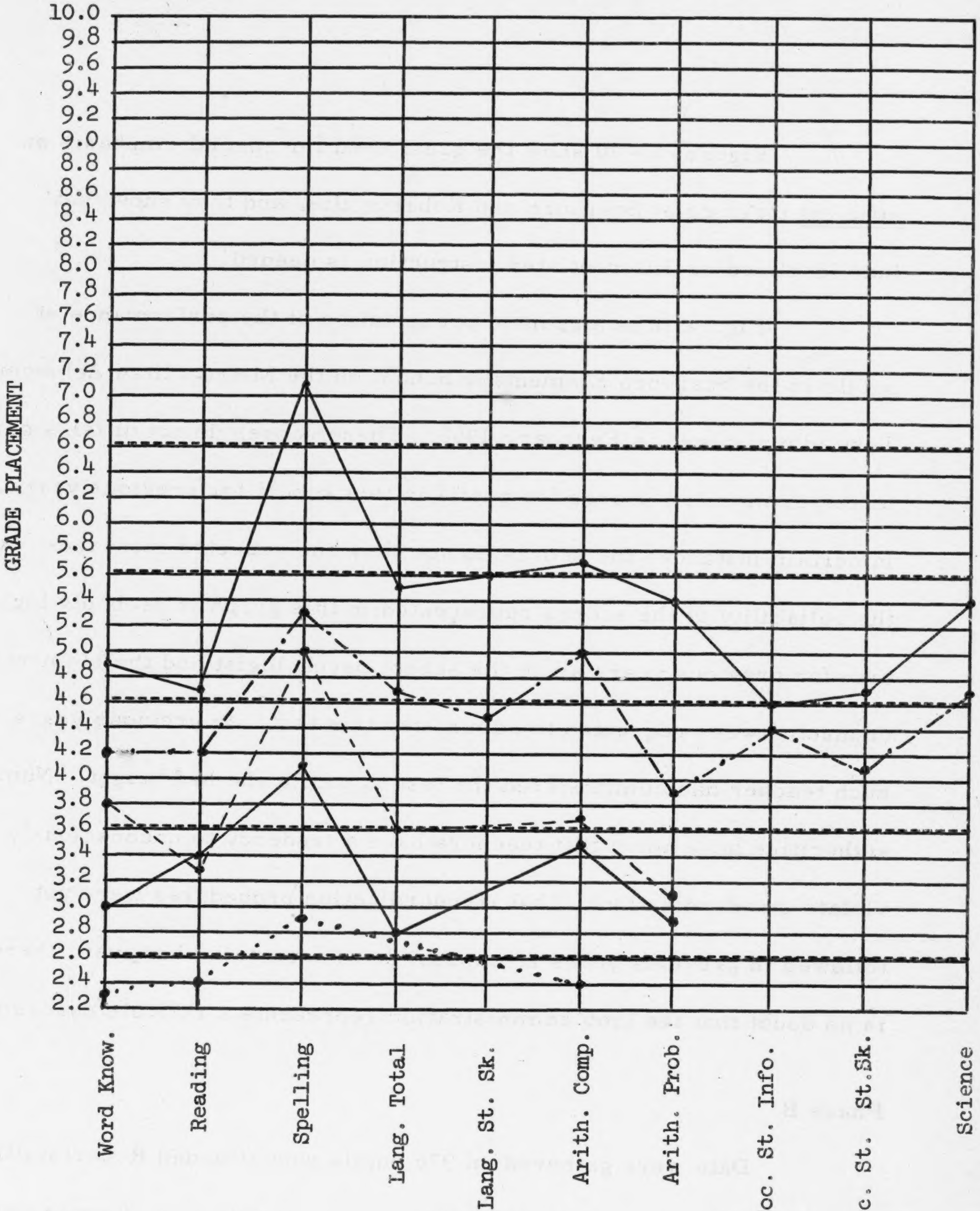

FIGURE 10

SCORES FROM METROPOLITAN ACHIEVEMENT TEST FOR SCARBORO ELEMENTARY SCHOOL, 1965-1966

Grade 2 . . . .
Grade 3 ————————
Grade 4 - - - - - - -
Grade 5 - · - · - · - · -
Grade 6 ————————

A list of suspensions from Robertsville Junior High for 1964-1965 showed 100 suspensions for that school year. Of these suspensions, 49 (49%) were Negro children while only about ten percent of the student body were Negroes. Therefore, the incidence of disciplinary problems for the Negro population was disproportionately great. Table XII is a tabulation of suspensions at the Robertsville Junior High School for three consecutive years. Of note is the relatively minor decline in total number of suspensions and in the percentage of suspensions for Negro pupils. Also, of interest is the significantly greater number of suspensions during the last half of the 1965-1966 school year. Tables VIII and IX (pp. 50, 51) show that the academic retardation which began at Scarboro continued at Robertsville.

The Workshop

A total of forty-seven teachers and staff members from the Scarboro Elementary School and Robertsville Junior High School attended a five-weeks workshop from July 6 to August 6, 1965. The purposes of this workshop were multiphasic. One purpose was to bring about inter- and intra-school understanding. While most of the workshop participants had met at professional meetings, few knew each other personally. Each of the two schools had certain faculty groups which functioned independently and each faculty felt the need to know its own personnel better. There

TABLE XII

SUSPENSIONS AT ROBERTSVILLE JUNIOR HIGH SCHOOL FOR THREE YEARS

	1965-1966	1964-1965	1963-1964
Total Suspensions	96	100	128
Negro Suspensions	32	49	52
Percent Negro	33.3%	49%	40.6%
Total - September - January	13	43	48
Percent-September - January	13.5%	43%	37.5%
Total - February - June	83	57	86
Percent - February - June	86.5%	57%	62.5%

was little exchange between the two schools; interaction was seldom and often superficial. Thus, one goal was to have the staffs know each other in a personal manner. Members of both staffs were aware of the need for time to discuss prejudices, hostilities and personal grievances. The staff of Robertsville Junior High needed to make its goals clear to the Scarboro staff and the Scarboro staff wanted to know the expectation of the Junior High School. A need for communication was generally recognized and was often voiced. Also, there was a need for articulation which would facilitate transition of students from Scarboro to Robertsville.

At the beginning of the workshop, the Minnesota Multiphasic Personality Inventory (MMPI) and the Minnesota Teacher Attitude Inventory were administered to all participants. Mean and median profiles from the MMPI are shown in Figures 11, 12 and 13. A tabulation of scores on the MMPI is included in Table XIII. Scores from the Minnesota Teacher Attitude Inventory were tabulated and the analysis follows:

> I. Three items discriminate with complete accuracy between the top 5 and the bottom 5 (none of the top 5 got "wrong" answers but all of the bottom 5 did).
>
> Item 35. Discipline in the modern school is not as strict as it should be.
> ("Wrong" answers: SA and A)
>
> Item 76. There is too much leniency today in the handling of children.
> ("Wrong" answers: SA and A)

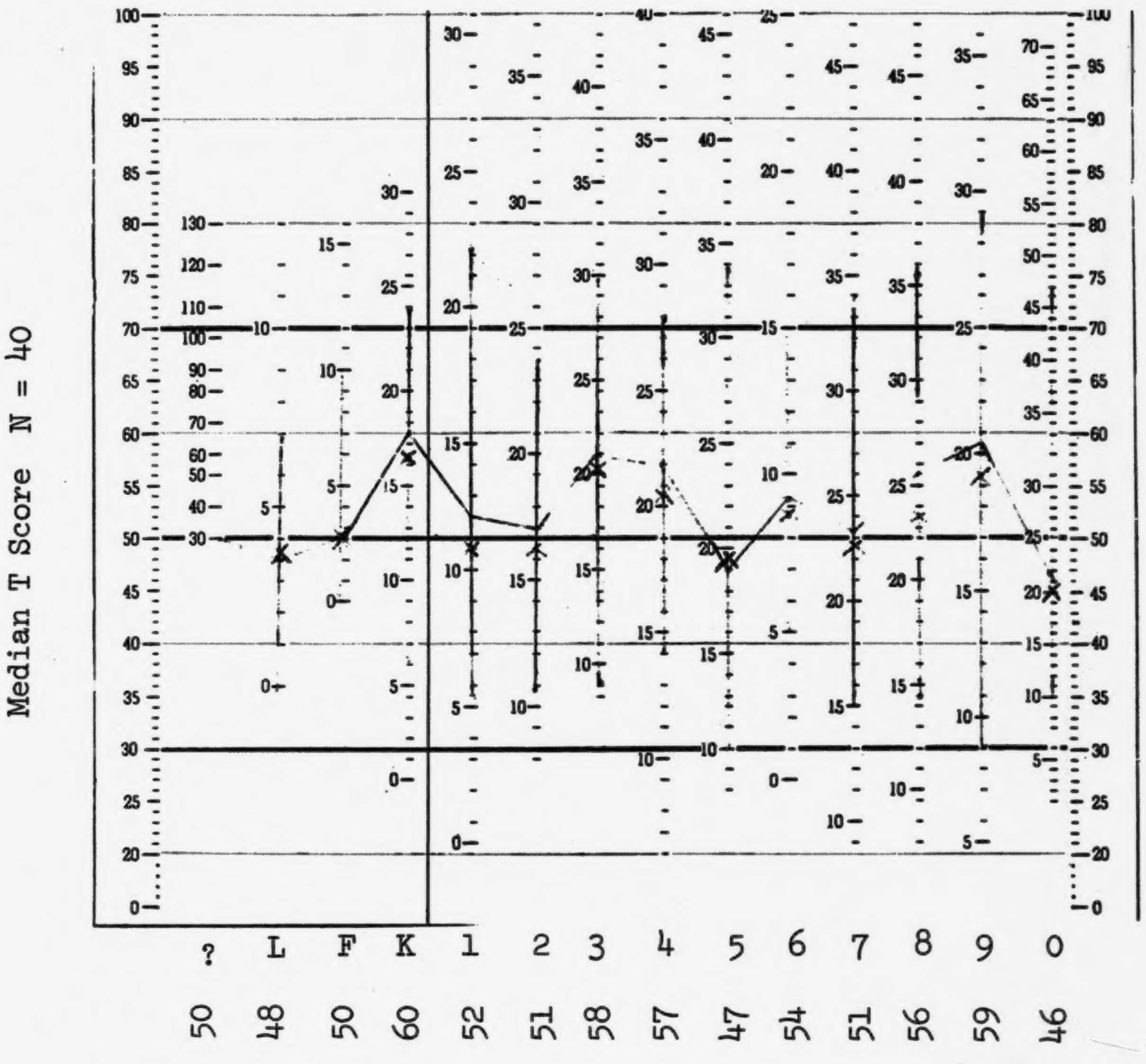

FIGURE 11

MEAN AND MEDIAN MMPI PROFILE FOR
WORKSHOP PARTICIPANTS

- Median
* Mean

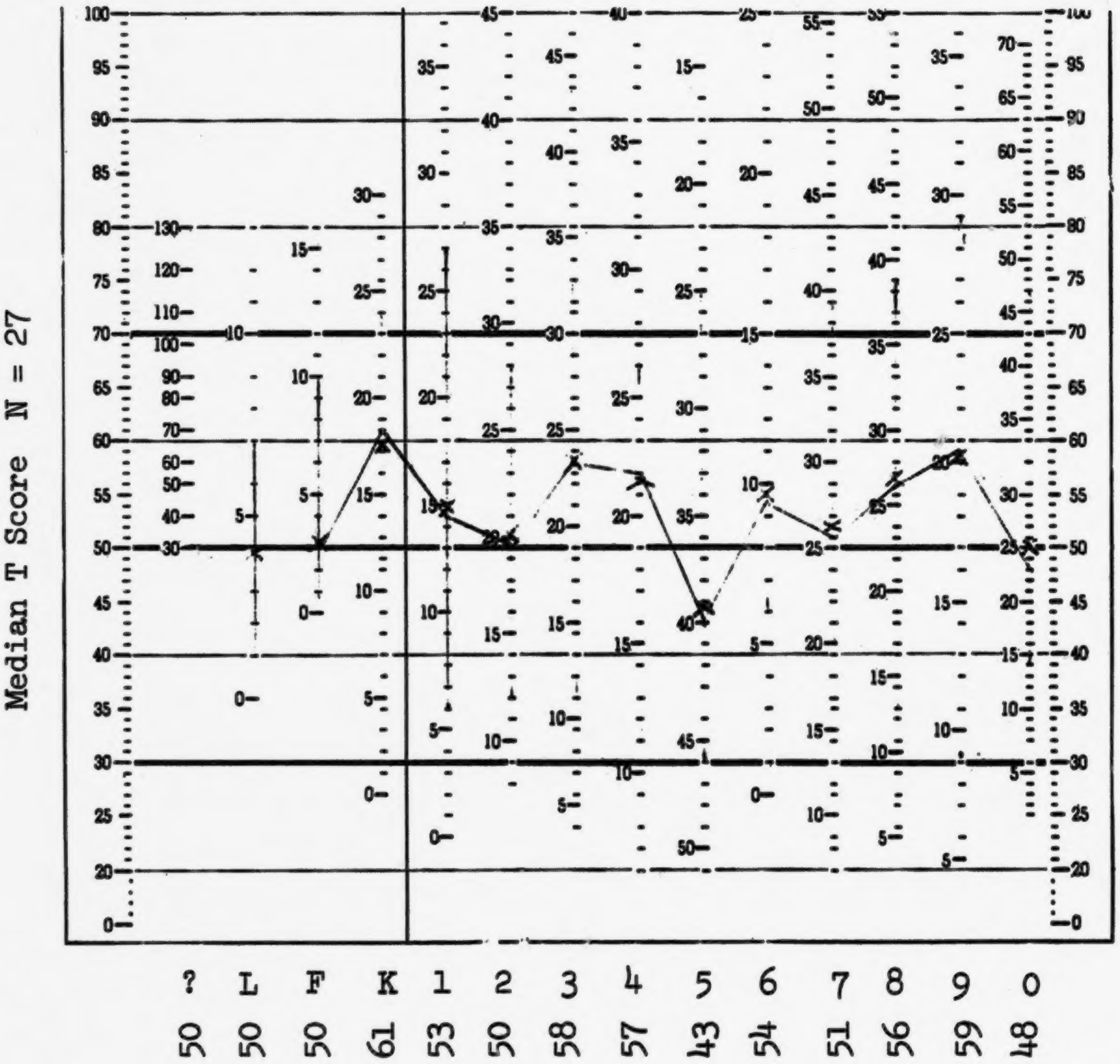

FIGURE 12

MMPI PROFILE FOR FEMALE
WORKSHOP PARTICIPANTS

- Median
* Mean

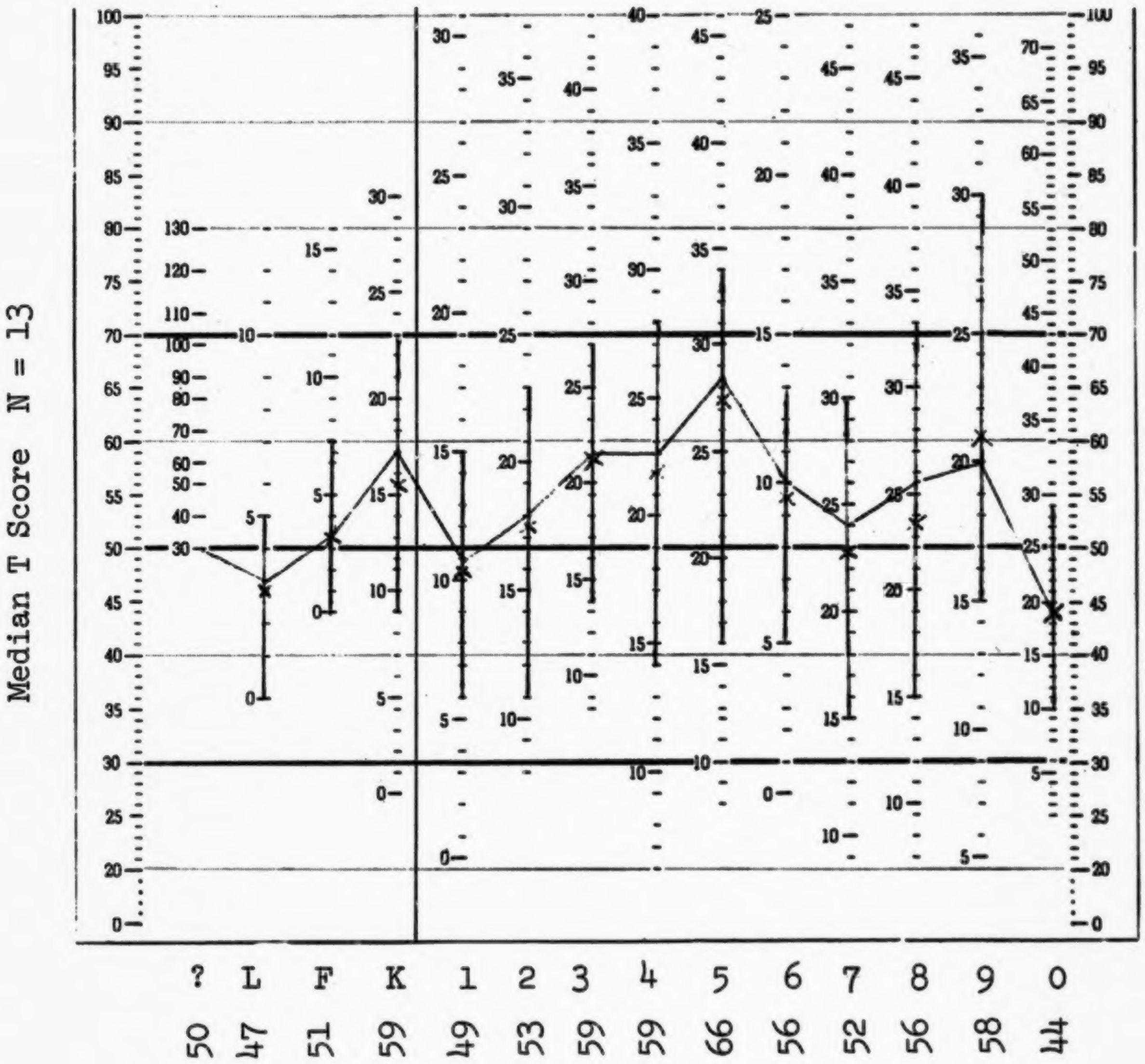

FIGURE 13

MMPI PROFILE FOR MALE
WORKSHOP PARTICIPANTS

- Median
* Mean

TABLE XIII

MMPI SCORES FOR TEACHERS IN WORKSHOP 1965

July, 1965, MALES

T-scores	?*	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
30 - 34											1			
35 - 39		2			2	1		2			2	3		3
40 - 44		3	2	1	2	2			1	2	2	1		5
45 - 49		5	3	4	3	1	1	1		1		1	2	3
50 - 54		3	6		5	5	2	2	1	3	4	1	4	2
55 - 59			1	2	1	2	5	2	2	4	1	5	1	
60 - 64			1	4		1	3	2	1	2	3	1	2	
65 - 69				1		1	2	3	6	1			1	
70 - 74				1				1	1			1	2	
75 - 79									1					
80 - 84													1	
Mean		46.0	51.0	56.7	47.9	52.1	58.7	57.1	63.7	54.8	49.8	52.1	60.2	44.0
Median		47	51	59	49	53	59	59	66	56	52	56	58	44

FEMALES

T-scores	?*	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
30 - 34									6				1	
35 - 39				1	1	2	1		6			1		2
40 - 44		9	5	1	1	2		3	3	3	4	1	2	9
45 - 49		4	9	2	6	9	3	3	8	4	8	3	4	5
50 - 54		9	8	3	11	7	3	5	1	8	6	6	4	2
55 - 59		3	4	6	3	3	11	6	1	3	6	9	3	4
60 - 64		2		5	1	3	5	6	1	5		2	4	3
65 - 69			1	6	1	1	1	4		3	2	4	6	1
70 - 74				3	2		2		1	1	1		1	1
75 - 79					1		1					1		
80 - 84													2	
Mean		49.7	50.3	59.7	54.4	51.2	58.1	56.4	43.4	55.5	52.5	56.6	58.6	50.3
Median		50	50	61	53	50	58	57	43	54	51	56	59	48

* All ? scores were too low to count.

TABLE XIII (continued)

July, 1965, MALES AND FEMALES

T-scores	?*	L	F	K	Hs	D	Hy	Pd	Mf	Pa	Pt	Sc	Ma	Si
30 - 34									6		1		1	
35 - 39		2		1	3	3	1	2	6		2	4		
40 - 44		12	7	2	3	4		3	4	5	6	2	2	5
45 - 49		9	12	6	9	10	4	4	8	5	8	4	6	14
50 - 54		12	14	3	16	12	5	7	2	11	10	7	8	8
55 - 59		3	5	8	4	5	16	8	3	7	7	14	4	4
60 - 64		2	1	9	1	4	8	8	2	7	3	3	6	4
65 - 69			1	7	1	2	3	7	6	4	2	4	7	3
70 - 74				4	2		2	1	2	1	1	1	3	1
75 - 79					1		1		1			1		1
80 - 84													3	
Mean		48.5	50.5	58.8	50.0	51.5	59.5	56.6	50.0	55.3	51.6	55.1	59.1	48.3
Median		48	50	60	52	51	58	57	47	54	51	56	59	46

* All ? scores were too low to count.

Item 126. Children today are given too much freedom.
("Wrong" answers: SA and A)

II. Considering the top 10 of the bottom 10, the following items resulted in the specific number of "wrong" answers for each group:

Item	Number giving "wrong" answer Top 10	Number giving "wrong" answer Bottom 10
10	2	9
24	2	10
31	0	7
35	0	8
60	2	7
76	0	7
86	1	7
126	0	6
136	1	8
140	0	6
149	2	7
	10	82

Item 10. It sometimes does a child good to be criticized in the presence of other pupils.
("Wrong" answers: A)

Item 24. Too many children nowadays are allowed to have their own way.
("Wrong": SA and A)

Item 31. Some children ask too many questions.
("Wrong": SA and A)

Item 60. It is easier to correct discipline problems than it is to prevent them.
("Wrong": all except SD)

Item 86. If a child wants to speak or to leave his seat during the class period, he should always get permission from the teacher.
("Wrong": SA, A, and U)

Item 136. A pupil should always be fully aware of what is expected of him.
("Wrong": A, U, and D)

Item 140. Teachers probably over-emphasize the seriousness of such pupil behavior as the writing of obscene notes.
("Wrong": D and SD)

Item 149. One should not expect pupils to enjoy school.
("Wrong": D)

Data relative to workshop participants are available. These data reveal that twenty-seven participants were female, fifteen male; thirty-one were married, eleven unmarried; seventeen held masters degrees, seven had work beyond the masters; all held professional certificates. The average participant had taught in Oak Ridge nine years and is 41.5 years old. Thirty-four participants live in Oak Ridge.

Each workshop participant was asked to prepare a list of twenty traits considered important characteristics of the "ideal pupil." Tabulation of these data reveals that these teachers look for ideal pupils who are highly motivated, respectful, well-groomed, honest, self-reliant, appreciative, punctual and humorous. The frequency of response for these traits is shown in Table XIV.

The workshop participants were also asked to list twenty traits considered to characterize the most undesirable pupil. These traits indicate that this group of teachers finds a student undesirable if he lacks motivation, is disrespectful, aggressive, anti-social, dishonest, truant,

TABLE XIV

TRAITS OF THE IDEAL PUPIL

	TRAITS	FREQUENCY
1.	High motivation: curious, contributes to class, likes reading, good work habits	154
2.	Respectful; kind, thoughtful, well-mannered	70
3.	Good grooming, physically active, interested in sports and hobbies	45
4.	Self-reliant	36
5.	Appreciative of art, music, people, nature	22
6.	Honest, trustworthy	21
7.	Sense of humor	20
8.	Punctual	19
9.	Accepts criticism	17
10.	Creative and original	10
11.	Average or above in ability	10
12.	Adjusts to new situations	6
13.	Tolerant	3
14.	High achievement	3

disturbed, poorly groomed, etc. The traits listed and the frequency of this listing are shown in Table XV. These traits are in many ways characteristic of underachieving, disadvantaged children.

The participants listed ten traits of characteristics of a "good" teacher. These traits might represent the teacher who would be respected by this group. The teacher would know subject matter, accept children, have devotion to teaching, be respectful, be neat in appearance, be able to motivate children, have a sense of humor, be fair, cooperative and friendly. The traits of a good teacher and their frequency are listed in Table XVI.

The workshop was structured in that specific meetings and activities were planned. However, no participant was told how his time should be spent. Participants were encouraged to wear informal clothing, group structure was flexible, participation was not required and coffee was available at all times. Most of the participants attended general meetings of the workshop; some elected to work individually. The philosophy of the workshop was to provide activity but to require no specific participation. Generally, when there was no planned activity for the entire workshop, several loosely structured groups formed. The pre-kindergarten, kindergarten and first grade teacher most often worked with the speech clinicians. These teachers evolved a goal of preparation of a language

TABLE XV

TRAITS OF THE UNDESIRABLE PUPIL

	TRAITS	FREQUENCY
1.	Low motivation: lazy, "forgets" to bring materials, fails to do assignments	111
2.	Disrespect: ignores rights of others, disrupts class	71
3.	Aggressive behavior: bullies, quarrels	46
4.	Anti-social behavior, vulgar language, destructive, resents authority	42
5.	Dishonest: lies, cheats, steals	38
6.	Truant and tardy	28
7.	Emotional problems: daydreaming, sullen, withdrawn, refuses help and friendship	25
8.	Poor grooming	21
9.	Home problems: overprotection, neglect, disinterest	17
10.	Poor self-concept or conceited	12
11.	Low achievement	11
12.	Intolerant; racial or other prejudices	5

TABLE XVI

TRAITS OF A GOOD TEACHER

	TRAITS	FREQUENCY
1.	Knowledge of subject matter; preparation, enthusiasm for area	47
2.	Accepts, understands, likes and enjoys working with children	33
3.	Professional attitude: devotion to teaching, giving extra time	31
4.	Respectful	25
5.	Neat in appearance, setting good example	25
6.	Establishes rapport, atmosphere for learning, motivates pupils	18
7.	Sense of humor	18
8.	Fair in dealings with pupils and colleagues	16
9.	Cooperative	15
10.	Friendly, attractive personality	14
11.	Maintains discipline	11
12.	Patience	10
13.	Perceives and provides for individual differences	10
14.	Admits mistakes, accepts criticism	8
15.	Well-rounded, broad interests	6
16.	Resourceful, creative, original	5

development program. The second, third and fourth grade teachers often worked together and the fifth and sixth grade teachers were generally found interacting with teachers from Robertsville.

The Robertsville staff, perhaps because of subject-area consultants, formed departmental groups. However, movement from group to group was not uncommon. Each department seemed to want some time together and each person spent some time alone.

During the workshop, activities of the teachers from Scarboro Elementary School were varied. One teacher read twelve professional books in addition to outlining her year's work while another made over 2000 flash cards to accompany the Ginn Basal Readers. One teacher visited Berea College, Berea, Kentucky to observe the research there in reading. She was especially interested in methods used in training of perceptually handicapped children. Another teacher attended the conference on social studies at the University of Tennessee.

The early childhood education group planned specific activities such as games, trips and songs to facilitate language development. Several teachers spent time working on a weekly radio-type program which would be taped and carried to each classroom. A variety of new materials were ordered. These include records, film strips, books, games and charts. Most teachers wrote letters to companies requesting free materials.. The art teacher from Scarboro planned an articulated program in graded sequence, isolated concepts to be taught at each grade level and organized works of art to be shown with each group.

The librarians of the two schools worked closely with teachers in preparation of book lists. They spent several days classifying new books as to levels of difficulty and made several new bibliographies.

The industrial arts teacher and the art teacher attended the Craftsman Fair at Asheville, North Carolina in order to observe new approaches, materials and methods. These teachers returned with enthusiastic reports of new ideas for their own departments.

The workshop participants from Robertsville Junior High worked in departmental groups. The activities of these groups were as varied as the subject matter to be taught.

Social Studies. Three workshop participants traveled throughout Tennessee collecting materials for use in teaching Tennessee History. These participants traveled to Chattanooga and East Tennessee then across the State to Nashville and Memphis. They took 216 color slides of industry, historical sites, schools and places of interest. They collected some 300 maps and brochures, books, pamphlets and items of interest. (See Appendix F) One participant prepared color slides of all maps used in the history and geography texts and worked on the scope and sequence of teaching ninth grade civics. One member of this department devoted time to correlation of library books, films and film strips with teaching units.

English. Members of the English Department devoted time to preparation of a scope and sequence for junior high school English. An articulated program was planned which will place stress on certain portions of grammar at each grade level. Materials were ordered to accompany each sequence and approximately 30 transparencies were prepared. One member of the department spent time reviewing the Nebraska model English program. Two English teachers spent time sorting materials and reviewing files. The department recommended establishment of a materials center within the school. New equipment was examined and professional journals were reviewed.

French. The French teacher devised a lesson progression for seventh, eighth and ninth grade, made thirty-two lesson plans, revised her plans to provide for individual differences in the classes, developed a phonetic and grammatical instruction technique to supplement her lesson and reviewed ten reading tests. She developed situation picture sheets, a flannel board, and an object box for teaching oral and written composition. She also ordered and reviewed 100 pamphlets, five posters and five books to use as enrichment materials.

Mathematics. The sequence in mathematics is being revised by the mathematics curriculum committee. The Hayes Modern Math series was reproduced for use at Robertsville. One member of the department prepared a scope and sequence for an algebra course while another prepared over 100 transparencies and overlays for use by all teachers. She also taught most of the workshop participants to design and produce their own materials.

Science. Members of the Science Department spent time in preparing experiments for use in general science. They concentrated on preparation of three track sequences within each experiment so that pupils may use the same experiment while learning different concepts. Materials and equipment were ordered to accompany these experiments. These materials were on various levels of difficulty so that materials will be available to explain the phenomenon being studied at several levels of sophistication. The department took several discarded tables and prepared to use these as dry laboratory stations. These stations will facilitate grouping and will make individual instruction easier.

Music. The Vocal Music Department prepared a sixty-page workbook for use in general music classes. There has been no text for this class. Transparencies were to accompany units in this workbook. An outline was prepared for a new course in vocal music, and plans were made for the choral groups for the coming year. Activities of the Instrumental Music Department for the past year were reviewed and some attempt was made to weld the two departments into one.

Industrial Arts. The industrial arts teacher prepared a unit on electricity to be included in the program. Eighteen blueprint type drawings were made for use in the shop and a list of concepts to be taught in these classes was prepared. Plans were started for a display of work from this department with the Art Department.

Art. The art teacher worked on a scope and sequence for the junior high program. Units were prepared and posters were made to explain the steps to be followed in the use of various media. The teacher did an excellent job in preparing materials that may be used by students as they work individually.

Physical Education. The physical education teacher proposed a posture correction program for the school. She analyzed data from the past five years fitness program and established local norms. A new soccer field was proposed and new goal posts were requested. This teacher spent some time with the Home Economics and Guidance Departments in attempts to correlate programs with them. (See Appendix J)

The workshop participants were asked to submit brief reports of activities and reactions to the workshop. All participants requested a workshop for next Summer 1966. Most expressed appreciation of the unstructured situation. The comments of participants are summarized in Table XVII. Reactions of participants to the workshop are shown in Table XVIII.

TABLE XVIII

INDIVIDUAL REACTIONS TO WORKSHOP

	REACTION	FREQUENCY
1.	Statements relating to cooperative planning, sharing, the exchange of ideas, personal freedom, improvement of communication between individual staff members and the staff members of Robertsville and Scarboro	44
2.	Better understanding of self and personal feelings and awareness of mutual problems	28
3.	Improvement of human relationships; acceptance, belonging; teacher-teacher relationships, group dynamics	27
4.	Received invaluable information and sources of materials from consultants and Project Director; new ideas, approaches, methods, techniques, etc.	29

TABLE XVII

PROJECTS AND ACTIVITIES FOR CURRICULUM IMPROVEMENT

ACTIVITY	FREQUENCY
1. Organization of materials:	
a. Gathering, collecting, planning and organizing new materials	32
b. Reviewing, examining, and previewing films, books, pamphlets, catelogues, etc. for ideas, materials, techniques and aids	32
c. Ordered new materials	32
2. Preparation of teaching aids and instructional materials:	
a. Units of work	19
b. Visual aids and displays	14
c. Patterns	13
d. Overlays	12
e. Transparencies	12
f. Word cards	6
g. Alphabet boxes	4
h. Devised tests	3
i. Compiled workbook	1
j. Development of imaginary character - "Mr. Pathfinder" - to be used as a source of inspiration and aspiration for pupils in Scarboro School	1
3. Read professional books for personal growth	32
4. Evaluation of materials, methods, and techniques as a means of providing for individual differences	27
5. Evaluation of pupil data:	
a. Cumulative folders	
(1) Test scores	24
(2) Personal data	14

		ACTIVITY	FREQUENCY
6.	Fieldtrips:		
	a.	Local - Headstart Program	12
	b.	State - made colored slides of important historical and geographical aspects of Tennessee	3
	c.	Out-of-State - Reading Research Project, Berea, Kentucky	1
	d.	Out-of-State - Craftsman Fair, Asheville, North Carolina	2
7.	Home-School relations:		
	a.	Home visits	4*

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*Does not include 60 visits of Project Director and Home-School Coordinator

As previously stated, all workshop participants requested that another workshop be planned for next year. They stated that this gave time to explore possibilities with new materials, to read professional bulletins and to examine courses of study. However, the most evident product of the workshop was a close working relationship among participants. The challenge at the end of the workshop was implementation of the ideas that came from this pre-school session.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this part of the final report is to draw conclusions about what has been accomplished, and to make recommendations relative to the future for this project.

Conclusions.

The data and systematic observations of the educational programs at Scarboro Elementary and Robertsville Junior High Schools clearly demonstrate that many factors have produced a situation which promotes academic, social and racial segregation. When the usual problems associated with school entrance and attendance are superimposed upon a matrix of problems associated with racial difference, a situation develops which is loaded with frustrations for the child. Many of the problems that are often assumed to be racial are not peculiar to the Negro, but are magnified in the Scarboro community by the isolation of this community, the low socio-economic status, the lack of communication between social agencies and families, and the lack of leadership within the community. Moreover, those school personnel in a position to alleviate frustrations of these children often compound them. The recent emphasis which has been placed on "learning" of subject matter (facts), the preoccupation of teachers with something which is called "achievement", the overemphasis on assessment of factual knowledge, the general tendency to expect something called normal performance, and the inability of members of one social group to empathize with children of another group have compounded the frustrations of the Negro child. Some of the factors that produce this frustrations are:

1. Language development is slower for the child who grows up in the isolated, segregated community. Therefore, he learns to read less rapidly and his acquisition of other knowledges is slower.

2. Slower than usual development in academic subjects is interpreted to the child and by the child as failure. This failure experience engenders other failure and lack of enthusiasm for school in general.

Failure at school, depreciation of self because of environmental conditions and peer pressures for one to oppose adult figures leads to a devaluation of self and to motivations that reject school.

4. Children with lack of motivation for traditional school subjects and who have failed basic subjects are aware that they are expected to fail. Thus, the attitude that failure is expected is a part of the material that is well learned at school.

5. The evidence indicates that hostility and rejection are present both within and between races. Our evidence clearly points out that Negro children experience rejection early and from many sources. Furthermore, there is abundant evidence to indicate that these children

know they are the object of hostility and they react to rejection by being hostile.

6. We conclude that teachers and administrators see themselves as agents of behavioral change, they have an academic understanding of the psychological principles for working with children, but they can be and are rather selective about which children receive consideration.

7. Evidence indicates that an early childhood education class can be of value to children from disadvantaged homes, but selection of the teacher, provision of materials and classroom atmosphere are exceedingly important factors.

8. There is abundant evidence that reading is extremely important as a key to academic success for children at Scarboro Elementary School.

9. We conclude that there is a clear need for differentiated or individualized instruction which will view each child in terms of his own potential. This means that there is a need for locally developed materials for schedule considerations.

10. We conclude that more supervision of principals and teachers is needed.

11. Evidence indicates that parents in the Scarboro community want their children to succeed in school, they will cooperate with school

programs, they view education as being highly important, they respect school personnel, and they want to know how to more ably support the school; but, they are handicapped by lack of time, misunderstanding of school goals, poor communication and the abundant evidence of inadequacy of the school program.

12. There is evidence that the school program, like most such programs, is geared for achieving, middle-class, non-Negro children.

Recommendations

1. It is recommended that the Oak Ridge Schools show positive leadership by discontinuing the Scarboro Elementary School at the earliest possible date. While this school may be equal to or superior to others within the system in equipment, staff and space, inadequacies are obvious. The strong recommendation is that there can never be a quality educational program under the present arrangement.

2. The language development program for pre-kindergarten children at Scarboro School should be continued. The teacher of this class should be encouraged to work closely with the kindergarten teacher and the first grade teacher. Children in these three classes should be studied carefully and should be moved from group to group for specific educational experiences that are designed to meet specific needs.

3. The entire enrollment of Scarboro Elementary School should be studied carefully and assignments should be made on the basis of educational need rather than by grade. (For example, thirty-seven children have been promoted to grade six for 1966-1967. Of these, seventeen are functioning at the fourth grade level in arithmetic, thirteen are functioning at the fifth-grade level, and six are functioning at sixth-grade level or above. In reading, this class has fourteen children who are below fourth-grade level, thirteen who read at fourth-grade level, four read at fifth-grade level, and five read at sixth-grade level. The physical characteristics of the sixth-grade classroom are such that not more than twenty children should be in that room. Furthermore, it will be absolutely impossible for one teacher to effectively and efficiently instruct these thirty-seven children. To leave this situation unchanged would be to encourage failure for both teacher and pupils, and would ensure academic segregation later.)

The strong recommendation is that those children who are achieving above sixth-grade level should be transferred to the elementary school which they would attend if Scarboro Elementary School were discontinued. Another excellent teacher should be employed to teach sixth grade at Scarboro for this year, and two classes should be formed. The investment of the salary for one teacher is small compared with the results that can be expected both this year and later. Since the situation in grades five and four differs little from that in grade six, it is recommended that these children not be taught in split grades or by changing classes.

4. It is strongly recommended that work with homes in Scarboro be continued. This work might include:

   a. The organization of a leadership committee or team composed of parents. The purpose of this committee would be to promote parent participation in school programs.
   b. Greater emphasis should be placed on efforts to include parents from Scarboro community in programs at Robertsville Junior High School.
   c. Parents from the Scarboro community should be utilized in program planning, as assistants for teachers and as tutors.
   d. The value of close cooperation between parent and teacher needs to be stressed to teachers, and regular meetings need to be scheduled. These meetings are of special value to parents of children in the early childhood education programs.
   e. Teachers from both Scarboro and Robertsville schools need encouragement to visit the homes of children in Scarboro.

5. It is recommended that the special reading programs be continued both at Scarboro and Robertsville. Furthermore, classroom teachers should be supervised as they teach reading.

6. Steps should be taken to strengthen the administrative guidelines and procedures to be followed in implementation of this project. Implementation breaks down because of administrative inefficiency which is damaging to teacher morale and to pupils. The objectives of the project cannot be achieved with less than maximum cooperation from administrators.

7. Guidelines should be clearly outlined for referral of pupils. There is abundant evidence indicating that referrals often represent rejections and that suspensions are too frequent and ineffective.

8. Very little has been accomplished in changing scheduling procedures. The traditional has proven comfortable and has therefore been continued. At both Robertsville and Scarboro schools recommendations have been disregarded when minor changes would have resulted in better utilization of personnel, more effective use of time and in more efficient instruction.

9. Steps should be taken to improve conditions for the Negro pupil at Oak Ridge High School.

10. It is recommended that placement of children in special classes (EMR) should involve the entire instructional and psychological services staff. There is evidence indicating that some children who score low on traditional tests and who are shy to non-Negro examiners are placed inappropriately in special classes.

11. It is recommended that steps be taken to see that all school drop-outs receive consideration by the school until some other agency is responsible for guidance services. Special consideration should be given to those who drop out for a short period of time.

12. The system by which free lunches are provided for certain children needs careful scrutiny. Evidence has indicated that children who come to school hungry and who have been seen eating from garbage cans are not given lunches because of family income or because of welfare checks. To attempt instruction is useless. There has been abundant evidence indicating that many children come to school hungry. The same hostilities that reject these children are present to deny free lunches.

13. Evidence indicates that suspension often represents rejection, and that it is ineffective as a disciplinary measure. Therefore, it is recommended that administrators and teachers should examine thoroughly the matter of handling potential offenders. This matter should

not be left to one school or to one faculty. Before any child is suspended, careful study should be made by professional personnel

APPENDIX A

OAK RIDGE SCHOOLS
Oak Ridge, Tennessee
Office of the Superintendent

Administrative Bulletin No. 1 July 8, 1965

PROCEDURES FOR DEVELOPMENT AND IMPLEMENTATION OF ROBERTSVILLE-SCARBORO CURRICULUM IMPROVEMENT PROJECT

The purpose of this bulletin is to define the position of Curriculum Improvement Project director, to outline the duties and responsibilities of this position and to develop procedures for development and implementation of the project at Scarboro and Robertsville Schools. The position is now held by Dr. William G. Watson.

1. The project director shall be responsible to the superintendent of schools. Programs and activities shall be coordinated through the assistant superintendent of schools.

2. Over-all directionality and general plans for this project shall be coordinated through a leadership team composed of the assistant superintendent, the director of pupil personnel services, the principal of Scarboro Elementary School, the principal of Robertsville Junior High School, the home-school coordinator of the project, and the project director. The chairman of this leadership team shall be the project director.

3. Responsibility for implementation and supervision of this project shall rest with the project director, the principal of Scarboro and the principal of Robertsville School.

4. All releases of information to public media relative to this project shall be proposed by the project director and released by the superintendent of schools. Information to private citizens in the community may be released by the project director with information copies of such releases sent to the superintendent of schools.

5. The project director is authorized to release numbered memoranda (announcements, schedules, etc.) related to the project as

necessary for routine administration of the project. Copies of such memoranda shall be sent to the superintendent, assistant superintendent, and director of pupil personnel services.

6. Statements of policy and procedure shall be released as an administrative bulletin.

7. Supervision of personnel (secretary for the project, workshop participants, consultants, and home-school coordinator) shall be the responsibility of the project director.

8. The project director is authorized to sign requisitions for materials for the project, payroll cards, and work orders within the budget of the project.

9. Compilation of data, reports, and summaries shall be the responsibility of the project director. The project director is authorized to gather such data as deemed necessary for the successful execution of the project. These data shall be made available to the project director by the schools and the office of the pupil personnel services.

APPENDIX B

SCARBORO SCHOOL

GRADE 1
1965-1966

Older Sibs:
  13 have none
  26 have

Younger Sibs:
  9 have none
  30 have

Teacher Report on Parental Attitudes
  15 Positive
  17 Negative
  2 Nothing reported

P. M. A. 11/65 N=36

	Verbal	Perc.	Num.	Spat.	Total
Range	64-109 (45)	66-114 (48)	62-116 (54)	53-126 (73)	50-113 (63)
Mean	81.58	87.83	84.33	86.25	76.81
Median	78.5	86.	85.5	88.5	78.
Mode		78/84	91	93/67	50

P. M. A. 4/66 N=35

	Verbal	Perc.	Num.	Spat.	Total
Range	82-145 (63)	72-127 (55)	69-123 (54)	62-119 (57)	75-127 (52)
Mean	101.05	101.31	96.51	94.29	99.00
Median	100	103	99	96	99.0
Mode		110	83/111	103	

GATES	5/66
Range	1.5 - 3.4
Mean	2.22
Median	2.2
Mode	2.5

SCARBORO SCHOOL

GRADE 2
1965-1966

Older Sibs:
22 have, 9 have none

Younger Sibs:
23 have, 8 have none

Parent Attitudes as Reported by Teacher:
20 Positive
9 Negative
2 No comment

Comments on Pupils:
21 Positive
9 Negative

P. M. A. 9/64 N=28

	Verbal	Perc.	Num.	Spat.	Total
Range	72-117(45)	64-118(54)	69-132(63)	57-119(62)	50-124
Mean	90.82	92.21	93.64	85.67	84.10
Median	86	90	89	89	81
Mode	81	78	84	89	71

GATES 10/64

Range	1.2-2.3
Mean	1.43
Median	1.3
Mode	1.4

GATES 5/65

Range	1.4-3.4
Mean	2.08
Median	1.8
Mode	1.4

GATES 9/65

Range	1.4-3.4
Mean	1.84
Median	1.6
Mode	1.4

METROPOLITAN 3/66 GRADE PLACEMENT 2.6

	Word Know.	Word Disc.	Reading	Spelling	Arith.
Range	1.6-4.9	1.1-4.9	1.6-4.9	1.0-4.4	1.1-4.1
Mean	2.52	2.96	2.59	3.01	2.60
Median	2.2	3.0	2.4	2.9	2.4
Mode		3.6	1.7	4.2	2.0
Below 2.6	17	11	17	11	16

GATES 5/66

Range	2.1-5.3
Mean	3.26
Median	3.2
Mode	3.3
Gain	1.6

SCARBORO SCHOOL

GRADE 3
1965-1966

Sex: 22 F, 22 M

Older Sibs:
32 have, 12 have none

Younger Sibs:
26 have, 18 have none

Comments on Parents:
36 Positive, 8 Negative

Comments on Pupil:
39 Positive, 5 Negative

P.M.A. 9/63 GRADE PLACEMENT 1.1

	Verbal	Perc.	Num.	Spat.	Total
Range	62-114	63-112	67-122	50-108	50-108
Mean	85.6	88.6	89.9	84.6	82.2
Median	85	86	91	88	84
Mode	91	86		92	50

GATES 10/64 GRADE LEVEL 2.2

Range	1.5-3.4
Mean	2.53
Median	2.3
Mode	3.2/1.5

METROPOLITAN 2/65 GRADE PLACEMENT 2.6

	Word Know.	Word Disc.	Reading	Spelling	Arith.	Battery
Range	1.7-4.9	1.7-4.9	1.6-4.9	1.1-4.9	1.0-4.9	2.1-4.9
Mean	2.92	3.39	2.85	3.79	2.73	2.89
Median	2.7	3.0	2.8	4.0	3.0	2.9
Mode	2.7	2.6	2.1	4.9	3.2	3.0
Below 2.6	17	13	17	13	15	16

GATES 5/65 GRADE PLACEMENT 2.9	
Range	1.9-5.5
Mean	3.43
Median	3.6
Mode	3.9

GATES 9/65 GRADE PLACEMENT 3.1	
Range	1.9-4.9
Mean	3.17
Median	3.1
Mode	2.5

METROPOLITAN 3/66 GRADE PLACEMENT 3.6

	Word Know.	Word Disc.	Reading	Spelling	Language	Arith. Comp.	Arith Prob.
Range	1.3-5.2	2.3-5.5	1.6-6.1	1.8-6.5	1.4-5.3	1.7-4.6	1.8-4.2
Mean	3.25	3.69	3.34	4.03	3.11	3.27	3.01
Median	3.0	3.4	3.4	4.1	2.8	3.5	2.9
Mode	2.8		3.0/3.5	5.7	2.6	2.2/3.5	2.7
Below 3.6	25	20	26	14	27	23	28

GATES 5/66 GRADE PLACEMENT 3.9	
Range	2.6-5.4
Mean	4.15
Median	4.1
Mode	
Gain	.98

SCARBORO SCHOOL

GRADE 4 (COMBINED)
1965-1966

Older Sibs:
34 have

Younger Sibs:
30 have

Comments on Parents:
33 Positive, 8 Negative

Comments on Pupil:
34 Positive

P. M. A. 9/62 GRADE LEVEL 1.0

	Verbal	Perc.	Quant.	Num.	Spac.	Total
Range	59-109	65-130	63-133	46-142	49-106	66-118
Mean	85.71	97	93.32	107.47	75.54	88.75
Median	88	99	94	101	71	90
Mode	104					
Below 100	34	21	24	17	37	33

METROPOLITAN 2/64 GRADE LEVEL 2.6

	Word Know.	Word Disc.	Reading	Spelling	Arith.	Battery
Range	1.7-4.6	1.8-4.9+	1.7-4.9+	1.6-4.9	1.6-4.3	1.9-4.9
Mean	2.6	3.28	2.70	3.39	3.04	2.99
Median	2.5	3.0	2.3	3.4	2.9	2.8
Mode	1.8	3.2		4.9		
Below 2.6	22	13	24	1.3	8	15

GATES 10/64 GRADE PLACEMENT 3.2	
Range	2.0-3.5
Mean	2.56
Median	2.5
Below	14

METROPOLITAN 2/65 GRADE PLACEMENT 3.6

	Word Know.	Word Disc.	Reading	Spelling	Lang.	Arith. Comp.	Arith. Prob.	Batt. Med.
Range	1.9-6.6	1.8-5.8	1.8-7.9	2.4-6.8	1.2-5.9	2.1-5.4	1.8-5.0	2.2-6.6
Mean	3.27	3.16	3.37	4.64	3.17	3.42	3.1	3.28
Median	3.1	3.1	3.1	4.6	3.3	3.5	3.0	3.4
Mode	3.1	3.1	3.1	4.6	3.3	3.5	2.7	
Below 3.6	30	32	25	11	26	26	31	26

GATES 5/65 GRADE PLACEMENT 3.6	
Range	2.5-5.8
Mean	3.9
Median	3.7
Below	19

GATES 9/65 GRADE PLACEMENT 4.1	
Range	2.3-5.7
Mean	3.66
Median	3.45
Mode	3.4

METROPOLITAN 3/66 GRADE PLACEMENT 4.6

	Word Know.	Word Disc.	Reading	Spelling	Lang. Total	Arith. Comp.	Arith. Prob.
Range	2.1-7.9	2.2-6.5	2.0-7.7	2.9-7.9	2.0-7.8	1.9-5.6	2.3-6.0
Mean	3.98	4.06	3.75	4.96	4.12	3.78	3.51
Median	3.8	3.9	3.2	5.0	3.6	3.7	3.1
Mode	2.8	3.9			2.6/3.5		2.8/3.1
Below 4.6	22	21	27	14	21	24	27

GATES 5/66

Range	3.0-8.0
Mean	4.56
Median	4.5
Mode	3.9
Gain	.90

SCARBORO SCHOOL

GRADE 5
1965-1966

Older Sibs:
26 have

Younger Sibs:
24 have

Comments on Parents:
30 Positive, 4 Negative

Comments on Pupil:
28 Positive, 7 Negative

LORGE THORNDIKE 10/61 GRADE PLACEMENT 1.2	
Range	58-112
Mean	87-62
Median	89
Mode	85

METROPOLITAN 3/63 GRADE PLACEMENT 2.6

	Word Know.	Word Disc.	Read-ing	Spell-ing	Arith.	Battery
Range	1.0-4.9	1.5-4.9	1.6-4.2	1.1-4.9	1.3-4.9	1.5-4.9
Mean	2.4	3.17	2.4	3.5	2.68	2.758
Median	2.3	3.0	2.2	3.8	2.8	2.9
Mode	2.2	3.4	1.9	3.8	3.0	3.0
Below 2.6	19	10	22	9	14	14

Grade 5 (continued)

METROPOLITAN 2/64 GRADE PLACEMENT 3.6

	Word Know.	Word Disc.	Read-ing	Spell-ing	Lang.	Arith. Comp.	Arith. Prob.	Battery
Range	1.4-7.6	2.1-7.9	2.0-7.9	2.0-7.9	1.1-7.9	2.1-6.7	1.8-6.0	2.2-7.9
Mean	3.13	3.45	3.54	4.4	3.42	3.51	3.21	3.5
Median	2.8	3.0	3.4	4.0	3.1	3.0	2.8	3.1
Mode	2.8	Tri. M.	3.4	4.0		2.9	2.7	3.2
Below 3.6	22	18	21	10	18	17	19	18

LORGE THORNDIKE 10/64

Range	75 - 147
Mean	99.67
Median	96
Mode	96
Below 100	16

CALIFORNIA READING

	10/64	5/65
Range	1.8-8.6	2.6-8.8
Mean	4.3	4.5
Median	4.0	4.1
Mode		3.9
Below	21	27

METROPOLITAN 2/65 GRADE PLACEMENT 4.6

	Word Know.	Word Disc.	Reading	Spelling	Lang.	Arith Comp.	Arith. Prob.	Battery
Range	1.8-7.6	2.4-6.5	1.8-7.9	1.5-7.9	1.0-7.9	2.0-6.7	2.1-6.8	2.1-6.8
Mean	3.9	3.96	3.83	4.77	3.91	3.9	3.78	3.88
Median	3.6	3.6	3.5	4.8	4.0	3.6	3.4	3.7
Mode	4.7	3.5	3.6	5.5	2.6	3.3	3.4	3.7
Below 4.6	24	24	27	15	21	24	27	25

GATES 9/65 GRADE PLACEMENT 5.1

Range	1.9-7.2
Mean	4.19
Median	3.9
Mode	

Grade 5 (continued)

METROPOLITAN 3/66 GRADE PLACEMENT 5.6

	Word Know.	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Range	3.0-10.	3.0-10.	3.4-10.	3.0-9.4	3.0-10.	3.8-7.6	3.0-5.4	3.0-10.	3 0-8.3	3.0-9.8
Mean	4.5	4.7	5.5	5.0	5.0	5.1	3.8	4.4	4.7	4.8
Median	4.2	4.2	5.3	4.7	4.5	5.0	3.9	4.4	4.1	4 7
Mode	3.1	4.2		3.5	3.8	4.15	3.9		3.8	4.4
Below 5.6	28	26	19	21	24	27	35	30	31	32

GATES 5/66

Range	3.1-9.5
Mean	5.25
Median	5.0
Mode	5.0
Gain	1.06

SCARBORO SCHOOL

GRADE 6
1965-1966

Older Sibs:
29 have

Younger Sibs:
28 have

Comments on Parents:
29 Positive, 13 Negative

Comments on Pupil:
34 Positive, 8 Negative

LORGE THORNDIKE 10/60 GRADE PLACEMENT 1.2	
Range	51-134
Mean	98.1
Median	95
Mode	
Below 100	24

METROPOLITAN 3/62 GRADE PLACEMENT 2.6

	Word Know.	Word Disc.	Reading	Spelling	Arith.	Battery
Range	1.1-3.9	1.0-4.9	1.2-4.4	1.0-4.9+	1.6-3.9	1.2-3.9
Mean	2.40	2.98	2.54	3.56	2.84	2.76
Median	2.5	3.0	2.2	3.8	2.9	2.9
Mode	2.9		2.2	4.9	2.8	3.2
Below 2.6	20	15	24	11	12	14

METROPOLITAN 3/63 GRADE PLACEMENT 3.7

	Word Know.	Word Disc.	Reading	Spelling	Lang. Tot.	Arith. Comp.	Arith. Prob.	Battery
Range	1.3-5.0	1.6-4.7	1.7-5.5	1.0-7.9	1.0-6.9	1.3-5.6	2.1-5.1	1.9-5.0
Mean	3.21	3.42	3.1	4.36	3.71	3.73	3.27	3.44
Median	3.1	3.5	3.1	4.4	3.5	3.9	3.0	3.5
Mode	2.9	3.7	3.0	6.5	3.2	3.7	2.7	3.7
Below 3.7	27	21	28	15	19	14	28	21

LORGE THORNDIKE 11/63 GRADE PLACEMENT 4.3

Range	77-125
Mean	99.08
Median	99
Mode	100
Below 100	19

METROPOLITAN 2/64 GRADE PLACEMENT 4.6

	Word Know.	Word Disc.	Reading	Spelling	Lang. Total	Arith. Comp.	Arith Prob.	Battery
Range	1.6-5.6	2.2-6.1	1.9-6.3	1.6-7.9+	1.5-7.9+	1.9-7.9	2.1-1.8	1.5-6.7
Mean	3.81	4.3	4.05	5.61	4.41	4.34	3.98	4.15
Median	3.8	4.4	4.0	5.3	4.0	3.9	3.8	4.1
Mode	4.1	4.6	4.3			3.9		
Below 4.6	29	21	31	13	22	24	29	25

Grade 6 (continued)

IOWA READING 10/64 GRADE PLACEMENT 5.2

Range	4.1-9.6
Mean	7.06
Median	7.3
Mode	
Below 5.2	3

CALIFORNIA READING 10/64 GRADE PLACEMENT 5.2

Range	2.0-5.9
Mean	4.19
Median	4.5
Mode	4.9
Below 5.2	12

METROPOLITAN 2/65 GRADE PLACEMENT 5.6

	Word Know.	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp	Arith. Prob.	Soc. St. Inf.	Soc. St. St.Sk.	Science
Range	3.0-7.1	3.0-7.1	3.0-10.+	3.0-9.9	3.0-7.0	3.0-7.0	3.0-7.0	3.0-6.6	3.0-6.6	3.0-6.6
Mean	4.51	4.1	5.81	5.12	4.63	4.97	4.7	4.29	4.2	4.56
Median	4.3	4.2	6.0	5.0	4.3	4.9	4.9	3.9	4.1	4.6
Mode		3.0	3.0				4.6	3.0	4.1	4.6
Below 5.6	32	31	16	26	30	22	29	32	36	34

IOWA READING 5/65 GRADE PLACEMENT 5.9

Range	4.7-10.5
Mean	6.80
Median	6.7
Mode	
Below 5.9	3

CALIFORNIA READING 5/65 GRADE PLACEMENT 5.9

Range	2.3-6.8
Mean	4.77
Median	4.8
Mode	
Below 5.9	14

Grade 6 (continued)

GATES 9/65

Range	2.1-6.4
Mean	4.53
Median	4.6
Mode	

METROPOLITAN 3/66 GRADE PLACEMENT 3.5

	Word Know.	Reading	Spelling	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Range	3.0-9.8	3.0-10.	3.0-10.	3.0-9.9	3.0-10.	3.6-8.1	3.0-9.0	3.0-10.	3.0-10.	3.0-7.4
Mean	4.9	5.1	6.8	5.4	5.3	5.6	5.4	4.8	4.7	5.2
Median	4.9	4.7	7.1	5.5	5.6	5.7	5.4	4.6	4.7	5.4
Mode			7.6	5 5		4.9/5 .7	5.1/6.3		4.1	4.3/6.2
Below	28	26	15	28	26	36	35	37	37	36

GATES 5/66

Range	3.2-10.7
Mean	5.76
Median	5.4
Mode	5.4
Gain	1.23

APPENDIX C

SCARBORO ELEMENTARY SCHOOL HISTORICAL BACKGROUND

Prepared by
Arizona Officer
July, 1965

In order to help in the understanding of the present program of Scarboro School and the problems related to the achievement of desirable success in the educational program, a short historical background is appropriate.

Scarboro Elementary School for Negro children was opened on September 9, 1946, with two teachers and fifty-seven children in grades one through eight. Thirty-nine children were in the first three grades, ranging in ages from six to fifteen years, Eight of the children had lived in Oak Ridge the previous winter and had been carried to Clinton for school. All the others were newcomers from Alabama, Mississippi, and Georgia, except children from two families of native Tennesseans.

The teaching-principal taught grades 1 - 3; the other teacher taught grades 4 - 8. As the enrollment increased, a third teacher was added at mid-year, January, 1947. Two more were added in 1947-48; one at the beginning and one in January. Even though the school enrollment increased, there was a constant turn-over as people came and left frequently.

There were no special teachers in art, music, library and physical education as in other elementary schools. The principal did the library work. The cafeteria was operated as follows: a woman employed as a custodian cooked and served the lunches; the first added teacher, who was a home economics major, planned the meals; and the principal operated the cash register, kept necessary records for free lunches, etc., and made reports to the business office.

During the first three years Scarboro was housed in a brick building which had been a county twelve-grade school before Oak Ridge was built. At the beginning of 1949-50 Scarboro was moved to its present location, which had been Gamble Valley School for approximately 450 white children living in trailers.

With the beginning of a permanent house-building program by the Federal Government, the Gamble Valley School was closed; its staff and equipment moved to the new Willow Brook School; and the people moved wherever they desired in other parts of Oak Ridge.

The Negro community in 1946-1950 was composed of about 1500 people, mostly adults, living in a hutment camp and in a few Victory cottages. The hutments were square one-room buildings with a stove (heater) in the center, drop wooden shutters for windows, and a bed in each corner.

Toilet facilities were in bathhouses--one bathhouse served several hutments. In many cases more than one family lived in a single hut since each separate corner (or bed) was rented. At first, only single men and women could live in the huts, presumably in the men's section or the women's section. Later some huts were designed as "family huts" and all four corners would be rented to one family if a family wanted that much space. However, it was not uncommon for a woman with children to have one or two corners rented while other adults (men or women) lived in the other corners. Some of the family huts added oil stoves for cooking purposes, but most residents ate at a central cafeteria operated by the contractor.

The parents of the school children had originally been recruited by the contractor for common labor jobs. Their educational level was very low and generally they were not too concerned about the educational progress of their children. However, the people were usually friendly and willing to try to help the school when there was a need for something to be done which they could do.

A Parent-Teacher Association was organized during the school term of 1947-48. It was difficult to find parents with enough education to conduct meetings, to record minutes, or to discuss school and community problems. Nevertheless, the Parent-Teacher Association remained alive and developed into a fairly normal organization.

The school population continued to be very unstable. The nature of the work done by the parents was not conducive to permanency. With the exception of those who were hired as maids and janitors, their work was usually temporary; and they went back home or elsewhere seeking work. After permanent housing was built in Gamble Valley and occupied in 1949-50, the school population became more stable. A few people with more education came and stayed; the more able ones remained on jobs longer; and later many bought their homes.

The school increased also in curriculum offerings. In 1949-50 kindergarten and ninth grades were added, and in 1950-51 grades ten through twelve. The addition of three more full-time paid teachers brought the teaching (paid) staff up to ten. The total enrollment, K - 12, was 200, with high school having 42 in grades 9 - 12. Under a community-sponsored plan by many interested citizens (white), four volunteer teachers taught part-time classes in French, science, and typing. This made it possible for those students who desired or needed a certain course to continue their programs since those already in high school had been transported to Austin High School in Knoxville.

In 1955-56, with the desegregation of Oak Ridge Schools, the junior and senior high students went to other schools. Scarboro became an elementary school, grades K - 6, as the other elementary schools had been. Since that time Scarboro has had the same services (after ten years) as all the other elementary schools--special teachers in art and music, and French in 1960-61. The exception was the library work. The principal was the librarian through 1961-62, when a part-time one was employed for two full days per week.

The present enrollment is 269, K - 6. There are ten full-time staff members, including the supervising principal and a full-time librarian since March 15, 1965; a half-time kindergarten teacher, a half-time secretary, three part-time special teachers, a speech teacher and psychologist scheduled from Guidance, two cafeteria workers, two custodians, the services of a homebound teacher, and of an attendance teacher when needed.

PURPOSES AND PROGRAM

Introduction

In the complex scheme of a democratic way of life the school is confronted with the task of the development of future citizens for society. Because of this great responsibility, Scarboro Elementary School is committed to the task of adjusting the school program to the needs, interests, and capacities of the child so as to develop a secure, well-rounded personality able to function in a democratic society.

Scarboro School staff has developed a set of objectives to determine the type of program needed for the pupils. After careful consideration agreement was reached among the staff and parents that the following objectives are most desirable for local needs.

A statement and brief description of how each objective is realized follows:

1. To provide experiences that will improve and safeguard the physical and mental health of each child.
    - a. School health nurse
    - b. Dental inspections
    - c. Cafeteria lunches
    - d. Free lunch program where needed
    - d. School health clinic
    - f. Milk program
    - g. Homebound teaching services
    - h. Health and safety programs

2. To offer experiences to help the child develop in the art of democratic living, but the child is to be made aware that in a democracy, he cannot always do as he pleases without regard for the rights of others.
    - a. Safety patrols
    - b. Fire marshals
    - c. Classroom rules and regulations
    - d. School rules and regulations
    - e. Junior Red Cross

3. To provide opportunities for each child to participate in choosing, planning, and evaluating cooperatively his experiences.
    - a. Sharing periods
    - b. Planning and reliving experiences
    - c. Assemblies
    - d. Special class projects
    - e. Group work, committees, etc.
    - f. Classroom visitation

4. To offer a program in which skills function normally in the daily living of each child.
    - a. Language arts
        - Reading
        - Writing
        - Spelling
        - English
        - Listening
        - Talking

   b. Mathematics
   c. Writing--manuscript and cursive (skill)
   d. Social studies
   e. Science
   f. Health and safety
   g. Physical education

5. To provide a natural environment of opportunities for creative expression and the development of an appreciation for the beauty in nature, art, music, and literature.

   a. Special classes--art, music, library
   b. Nature walks
   c. Field trips

6. To urge wise use of leisure time so that there may be a realization of personal satisfaction and the development of worthwhile interests.

   a. Play and gym periods
   b. Library periods
   c. Clubs
   d. Hobbies

7. To stimulate basic understanding and interest among parents, laymen, and the general community.

   a. Parent-Teacher Association
   b. Homeroom parent meetings
   c. Parent-conference periods
   d. Written reports
   e. Grade-level brochures

These objectives represent the responsibilities that the staff has accepted as desirable value patterns for the pupils of Scarboro School. The staff recognizes the following factors as problems: location of school and community, the meager experience background of the children, and the failure of the large number of parents to assume leadership responsibilities for the solution of family, school, and community problems.

The all-Negro community, as a whole, appears to be non-aggressive. Many of the residents hold to old traditions, mores, and values which they brought with them. Their own experiences with discrimination and segregation keep them from encouraging their children to seek higher goals.

Thus Scarboro's parents frequently have been the unskilled, the uneducated, unemployed, and many on welfare. Their children enter school with limited and inadequate educational preparation. There is an extreme lack of the basic language skills needed for successful school achievement. Handicapped by lack of language skills the children are not easily motivated to try to succeed. Attitudes vary from indifference to outright hostility.

In spite of sound instructional techniques and varied materials, they withdrew farther and farther from learning experiences. As they grow into junior and senior high school age they become more sensitive and defensive and drop out as soon as they reach the non-compulsory age. The very few cases where Scarboro's students do attempt to succeed are usually shunned by the majority of the young people and are not accepted even by some adults.

APPENDIX D

[redacted]

GRADE 7
1965-1966

Older Sibs: 23 have

Younger Sibs: 26 have

Comments on Parents: 31 Positive, 4 Negative

Comments on Pupil: 29 Positive, 6 Negative

LORGE THORNDIKE 9/59 in GRADE 1.0 N = 31	
Range	64-119
Mean	86.6
Median	86
Mode	81
Below 100	27

GATES READING 5/60 in GRADE 1.9

	WORD RECOG.	READING	TOTAL
Range	1.6-3.3	1.6-3.2	1.4-4.4
Mean	2.6	2.3	2.28
Median	2.7	2.4	2.3
Mode	2.7		
Below 1.9	1	2	8

METROPOLITAN 3/61 GRADE PLACEMENT 2.7 N=32

	WORD KNOW.	WORD DISC.	READING	SPELLING	ARITH. TOTAL	BATTERY MDN.
Range	1.7-4.6	1.6-4.6	1.6-4.0	1.3-4.9	1.6-4.3	1.6-4.3
Mean	2.95	3.09	2.82	3.67	3.15	3.07
Median	2.9	3.0	2.8	4.2	3.2	3.1
Mode	3.1	3.4	3.3	4.7		3.4
Below 2.7	9	10	12	10	8	8

Grade 7 (continued)

METROPOLITAN 3/62 GRADE PLACEMENT 3.7 N=33

	WORD KNOW.	WORD DISC.	READING	SPELLING	LANG. TOTAL	ARITH. COMP.	ARITH. PROB.	BATTERY
Range	1.3-5.7	2.1-5.5	1.9-4.4	1.8-4.9+	1.1-5.5	-1.0-4.6	2.1-5.2	2.1-5.3
Mean	2.91	3.30	2.98	4.14	3.19	3.56	3.23	3.34
Median	2.9	3.1	2.8	4.1	3.2	3.8	3.1	3.4
Mode	2.9	2.6	2.7		3.2			3.9
Below 3.7	29	22	29	11	21	13	23	20

LORGE THORNDIKE 3/63 GRADE PLACEMENT 4.7 N=29

Range	76-120
Mean	94.3
Median	92
Mode	--
Below 100	19

METROPOLITAN 3/63 GRADE PLACEMENT 4.7 N=32

	WORD KNOW.	WORD DISC.	READING	SPELLING	LANG. TOTAL	ARITH. COMP.	ARITH. PROB.	BATTERY
Range	2.8-5.9	2.3-6.1	2.3-7.9	2.4-7.9	2.4-7.9	1.9-7.9	2.2-5.2	2.4-6.1
Mean	4.11	3.98	3.85	5.29	4.92	4.43	3.86	4.18
Median	3.8	3.9	3.7	5.0	4.6	4.2	3.7	4.2
Mode	3.8	5.1	3.6	7.9	7.8		5.0	
Below 4.7	24	24	28	9	16	21	24	23

Grade 7 (continued)

METROPOLITAN 2/64 GRADE PLACEMENT 5.6 N=34

	WORD KNOW.	READ-ING	SPELL-ING	LANG.	LANG. ST. SK.	ARITH. COMP.	ARITH. PROB.	SOC. ST. INFO.	SOC. ST. ST. SK.	SCI.
Range	2.6-6.6	2.6-7.1	2.6-9.8	2.6-8.7	2.6-9.4	3.6-6.5	2.6-6.5	2.6-7.0	2.6-6.1	3.2-7.0
Mean	4.29	4.41	5.27	4.67	4.61	4.91	4.80	4.40	4.20	4.73
Median	4.3	4.2	5.0	4.4	4.3	4.9	4.9	4.3	4.1	4.7
Mode	4.7	3.5	3.9	3.9	3.6					
Below 5.6	31	28	20	27	28	26	25	27	31	29

IOWA READING N=35
9/64 GRADE PLACEMENT 6.0

Range	2.2-11.6
Mean	5.68
Median	5.2
Mode	5.1
Below 6.0	23

IOWA READING N=34
5/65 GRADE PLACEMENT 6.9

Range	2.6-10.5
Mean	5.62
Median	5.4
Mode	5.6
Below 6.9	28

METROPOLITAN 2/65 GRADE PLACEMENT 6.6 N=34

	WORD KNOW.	READ-ING	SPELL-ING	LANG.	LANG. ST. SK.	ARITH. COMP.	ARITH. PROB.	SOC. ST. INFO.	SOC. ST. ST. SK.	SCI.
Range	-3.0-9.2	3.1-8.9	3.0-10+	-3.0-8.5	3.3-8.6	4.3-7.0	3.0-7.1	-3.0-9.2	-3.0-10+	3.2-8.1
Mean	5.27	5.19	6.31	5.27	5.58	5.41	4.99	5.02	4.85	5.31
Median	5.1	4.7	6.3	5.1	5.3	5.3	4.9	5.1	4.7	5.0
Mode	4.9		5.5		5.3	5.3	5.1	5.1	4.7	
Below 6.6	30	29	22	29	24	33	33	31	32	28

ROBERTSVILLE JUNIOR HIGH SCHOOL

GRADE 8 1965-1966
Negro Students

P. M. A. 9/58 GRADE PLACEMENT 1.0

	Verbal	Percept.	Quant.	Motor	Space	Total
Range	79-116	46-130	63-130	45-136	45-103	63-117
Mean	102.6	100.9	95.1	86.97	68.3	94.3
Median	103	103	94	96	66	92
Mode		103		100	49	
Below 100	12	15	22	21	32	20

GATES READING 9/59 GRADE PLACEMENT 2.1

	Word Recog.	Para Mean.	Av. Reading
Range	1.3-2.5	1.5-2.7	1.5-2.5
Mean	2.00	2.13	2.03
Median	2.1	2.2	2.1
Mode	2.2	2.3	2.2
Below 2.1	16	10	13

STANFORD ACHIEVEMENT 4/60 GRADE PLACEMENT 2.8

	Para. Mng.	Word Mng.	Av. Read.	Arith. Reas.	Arith. Comp.	Arith. Av.	Spell-ing	Lang.	Batt. Med.
Range	1.6-4.0	1.4-4.4	1.5-4.2	1.0-4.0	1.0-3.8	1.1-3.9	2.4-2.9	1.6-2.8	1.7-4.0
Mean	2.70	2.67	2.66	2.41	2.42	2.40	2.65	2.25	3.18
Median	2.7	2.6	2.6	2.3	2.5	2.3			3.3
Mode		3.4	2.3	1.7	2.3	1.9			
Below 2.8	22	22	22	22	24	22	1	1	3

METROPOLITAN 3/61 GRADE PLACEMENT 3.6

	Word Know.	Word Disc.	Reading	Spelling	Lang.	Arith. Comp.	Arith. Prob.	Batt. Med.
Range	2.1-6.2	1.8-5.3	1.6-6.8	2.0-7.9	1.0-6.9	2.2-5.6	1.5-5.7	2.1-7.0
Mean	3.44	3.28	3.26	3.98	3.26	3.62	3.67	3.51
Median	3.1	3.0	2.7	3.8	3.1	3.3	3.2	3.0
Mode	2.1	2.9						2.8
Below 3.6	21	23	25	17	24	22	21	23

LORGE-THORNDIKE 3/62 GRADE PLACEMENT 4.6

Range	69-114
Mean	92.1
Median	93
Mode	
Below 100	27

METROPOLITAN 3/62 GRADE PLACEMENT 4.7

	Word Know.	Word Disc.	Reading	Spelling	Lang.	Arith. Comp.	Arith. Prob.	Batt. Med.
Range	2.1-6.2	2.3-6.1	1.7-5.3	2.2-7.9	1.2-7.5	2.5-7.6	2.4-6.4	2.6-6.2
Mean	3.52	3.87	3.39	4.91	4.26	4.51	3.87	3.96
Median	3.5	3.7	3.4	5.0	3.9	4.1	3.7	3.9
Mode	2.7		2.8	7.9	2.6	4.0	2.7	
Below 4.7	30	28	35	18	25	22	28	26

Grade 8 (continued)

METROPOLITAN 3/63 GRADE PLACEMENT 5.7

	Word Know	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Range	2.6-7.9	2.6-7.1	2.6-9.8	2.6-8.5	2.6-8.0	2.6-7.2	2.6-6.8	2.6-6.1	2.6-7.1	2.6-6.6
Mean	4.42	4.24	5.13	4.78	4.51					
Median	4.2	4.0	4.3	4.7	4.3	5.0	4.9	3.8	4.1	4.2
Mode			2.6	2.6	3.8	4.9	4.4	2.6		3.9
Below 5.7	31	32	23	25	30	27	27	35	33	34

METROPOLITAN 2/64 GRADE PLACEMENT 6.6

	Word Know.	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Range	2.6-7.1	3.0-8.7	2.0-9.8	2.6-9.6	3.3-8.6	4.1-7.7	3.6-7.9	2.6-8.1	3.2-7.8	3.3-7.4
Mean	4.55	5.04	6.49	5.23	5.18	5.69	5.50	5.02	4.80	5.08
Median	4.5	5.3	5.7	5.0	4.5	5.5	5.4	4.9	4.4	5.1
Mode	4.5	5.3	10.6	2.6	4.5	4.6	5.3			5.3
Below 6.6	32	30	20	26	27	26	29	30	33	31

Grade 8 (continued)

LORGE THORNDIKE 2/65 GRADE PLACEMENT 7.6	
Range	71-120
Mean	92.1
Median	92
Mode	
Below 100	30

METROPOLITAN 2/65 GRADE PLACEMENT 7.6

	Word Know.	Reading	Spelling	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc.St. Info.	Soc. St. St.Sk.	Science
Range	2.2-10.+	3.0-9.2	3.0-10.+	3.4-10.+	3.3-10.+	4.4-10.+	3.7-9.4	3.1-10.+	3.0-10.+	2.4-8.7
Mean	5.67	5.30	7.29	6.46	6.45	6.31	6.15	5.80	5.44	5.46
Median	5.2	4.9	7.6	5.9	6.2	6.2	6.2	5.4	5.4	5.2
Mode		3.5	10.+	5.9				3.8	5.4	5.2
Below 7.6	29	32	17	25	29	31	30	33	35	35

Grade 8 (continued)
(Negro)

METROPOLITAN 3/66 GRADE PLACEMENT 8.6

	Word Know.	Read-ing	Spell-ing	Lang.	Lang. St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Range	3.1-10.	3.3-10.	4.0-10.	3.8-10.	3.0-10.	4.2-10.	3.7-9.9	3.8-10.	3.5-10.	3.0-10.
Mean	6.43	5.95	8.08	7.13	6.97	6.68	6.55	6.75	5.69	6.33
Median	6.01	5.40	8.35	6.85	6.6	6.6	6.6	6.3	5.4	6.55
Mode	5.6	3.8	10.0	10.0	10.0	5.6/6.6	6.6	10.0	5.4	
Below 8.6	31	33	18	25	25	35	35	29	32	29

(White)

METROPOLITAN 3/66 GRADE PLACEMENT 8.6

	Word Know.	Read-ing	Spell-ing	Lang.	Lang St. Sk.	Arith. Comp.	Arith. Prob.	Soc. St. Info.	Soc. St. St.Sk.	Science
Range	4.5-10.	4.4-10.	5.3-10.	4.2-10.	3.3-10.	5.0-10.	5.0-10.	4.2-10.	3.3-10.	5.0-10.
Mean	9.13	9.04	8.89	8.86	9.11	8.56	8.87	9.03	8.55	8.97
Median	10.0	10.0	9.8	9.6	10.0	8.7	9.7	10.0	10.0	10.0
Mode	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Below 8.6	65	71	80	88	70	131	100	70	85	58

APPENDIX E

STATEMENT OF PURPOSE AND APPROACH

ENGLISH DEPARTMENT
ROBERTSVILLE JUNIOR HIGH SCHOOL

Helping children learn to speak, listen, write, and read with increasing effectiveness is the English teacher's job. Effectiveness in these areas at the junior high school level primarily means accurateness. Thus it is that accurateness of expression and accurateness of interpretation shall be the basic goals of our English program.

Content

What shall be taught is determined by the basic objectives. Those elements of the English curriculum that are questionable in their relationship to accurateness of expression or accurateness of interpretation must be closely scrutinized. If they do not relate but are felt desirable as enrichment, then they should be included, as such, for those students ready for that particular type of enrichment. If it is agreed that they serve no real purpose and detract both student and teacher from their primary goals, then those elements should be cleanly stricken from the curriculum.

Method

Though the what to teach is of importance, the question of how to teach it presently strikes more pertinently at the traditional

English room. The danger of becoming "terminology-happy" is present in all areas of education, but the teacher must recognize that knowledge _per se_ (as in a definition) is on the lowest order of cognitive learning. Comprehension, application, analysis, synthesis, and evaluation are -- in ascending order -- increasingly complex skills and infinitely more rewarding to the student.

Having recognized the above facts and having seen daily proof of them in the classroom, the English Department at Robertsville Junior High School has incorporated the following points into its statement of objectives and into its approach to teaching English.

1. Our objectives shall be to increase each student's accurateness of expression and accurateness of interpretation.
2. Any part of our curriculum that does not bear on these objectives shall be dropped or, if having a value of its own, shall be considered as enrichment.
3. Nothing shall be taught for mastery by the average and above-average student unless it relates to our objectives.
4. All concepts taught shall be explained in terms of purpose and objective before the teacher begins instruction.
5. Insofar as is possible, an inductive, or discovery, method of teaching shall be used. Terminology will be introduced when comprehension of the concept taught is reached.

6. Instruction shall lead to application of concepts learned in expression and in interpretation.

7. Evaluations will test the student's comprehension of concepts and his ability to use these concepts for more effective, efficient communication.

8. Instruction and evaluation shall include all elements of cognitive learning: knowledge, comprehension, application, analysis, synthesis, and evaluation.

LIST OF TAPES PRODUCED BY ROBERTSVILLE ENGLISH DEPARTMENT

1. Consonants
2. Short vowels: a, e, i
3. Short vowels: o, u
4. Pronoun case: compound subjects, direct object, objects of prepositions; comparisons
5. Indefinite pronouns - agreement with antecedent
6. Here, there - subject-verb agreement
7. Good, well
8. He don't; double negatives
9. Be
10. Sit; set
11. Lie
12. Lay, lie-lay
13. Can, may - irregular verbs

FUNCTIONAL GRAMMAR

Areas	Seventh Grade	Eighth Grade	Ninth Grade
Sentence	Fragment Simple sentence Run-on sentence Simple compounds in subj., verb, d. o.	Compound sentence Coordinating conj. Inverted sent., there as expletive Sentences include prepositional phrases	Complex sentence Subordinating conj. adverb clause Compound sent. Correlative conj.
Noun	Concrete nouns Use: subject direct object indirect object Direct address Proper nouns: businesses buildings	Nouns: time emotions Use: object of preposition, appositives following proper names comp. obj. of prep.	Nouns: qualities ideas Collective nouns Plurals of no.'s, words signs, letters, and words used as words Appositive phrases
Pronoun	Personal - possessive nominative objective Demonstrative as substantive as adjective	Interrogative Compound (myself, etc.)	Indefinite
Verb	Action verbs Helpers: can, could, may, might, must, would, should Time as shown in simple tenses	Helpers: have, has had Linking - as relates to predicate pronoun case agreement	Helpers: do, does, did, done, all of be (Progressive emphatic)
Adjective	One word adj. (Demonstrative pn.)	Prepositional phrase Pred. adj. as distinguished from adverb	
Adverb	One word adverb (excepting intensifiers)	Intensifiers Time and place nouns used as adv. Prepositional phrase	Adverb clause

Functional Grammar (cont'd.)

Areas	Seventh Grade	Eighth Grade	Ninth Grade
Punctuation	Unbroken quotations Dates and addresses in sentences Yes, no, mild exclamations Hyphen in syllabication (21-99) Nouns of direct address	Introductory prep. phrase Comp. sentence Conversation	Broken quotations Correlative conjunctions Subordinating conjunctions Words - used as words, etc. Magazines, articles, newspapers, skits; short-long poems, songs, plays Parenthetical expressions Transitional words and phrases
Capitalization Variety Agreement	c: General and specific nouns Titles (with and without name) v: Declarative, interrog. and imperative Introductory adverb a: Subject and verb compound subject and verb	c: Deity references areas and directions School subjects v: Inverted sentence There as expletive n: subj.-verb: with there Inverted sentence with intervening prep. ph.	Agreement: indefinite pronouns with there antecedents Subject verb agreement Indef. pronouns Collective nouns

APPENDIX F

Oak Ridge Schools
Oak Ridge, Tennessee

SOCIAL STUDIES--POINT OF VIEW

Changes are taking place so fast in our society that constant planning and revision are needed to keep the social science curriculum up-to-date and the methods of instruction both efficient and effective. The world in which we live today bears only remote resemblance to the world a generation or two ago, and the world that is taking shape around us will bear less resemblance. Therefore, if we hope to prepare students for effective participation in society, we must deal with the persistent problems of that society.

Social studies in the schools should:

1. Provide experiences in human behavior to develop competent citizenship.

2. Give the student relevant information about the culture of mankind.

3. Develop attitudes, skills, and modes of inquiry so that the student will be able to make sound decisions and be willing to act to resolve the problems that confront him.

In order to meet these goals, we assume that:

*1. The scope and sequence for K - 12 will have some time devoted to social studies at each grade level.

2. Social studies will be made an explicit feature of the K - 12 curriculum.

3. Experimentation in flexible scheduling will be provided, especially in junior high school and senior high school, so that a better use of time may be made and more attention be given to individual differences of students.

*4. A modern social studies program will take into account significant contributions from all the social sciences.

5. The framework or units within each level will provide for continuity.

*6. Units will be numbered consecutively from level to level so as to facilitate a non-graded approach.

7. Adequate time will be provided for teachers to prepare units.

*8. Units will be prepared in such a manner that they can be duplicated and placed in the students' hands.

*9. An inquiry-centered approach will be built into the units activities with strong emphasis placed on the idea of discovery.

10. Different approaches, methods, and techniques will be explored to provide for more effective teaching.

A coordinated or integrated program of the social science disciplines, that is the separate discipline not in isolation but in relation one to the other, seems to be the trend for a desirable social studies plan in levels K - 12. The social science disciplines--geography, economics, sociology, political science, anthropology, and history--are reliable models for inquiry or a mode of study. They provide a disciplined way to learn subject matter which includes both the substance learned and the method of learning.

The disciplines help to transfer knowledge and facilitate retention by encouraging depth of understanding through discovery and inquiry. Therefore, after the student learns how to learn, much of the content of subject matter should be acquired on his own rather than to take class time for content which does not require systematic instruction.

History and geography may be considered the integrating disciplines, since all events take place at some time and in some place. Both rely upon the materials of sociology, economics, and political science. History, especially, takes the data of these three disciplines and gives them the related meaningfulness as applied to some particular events or some particular century.

*From Dr. Allen's SOCIAL STUDIES CURRICULUM K - 12, October 1965.

PROPOSED GUIDE FOR SOCIAL STUDIES CURRICULUM DEVELOPMENT

KINDERGARTEN

Theme: "Home and School Orientation"

Suggested Units:

Learning about Myself

Learning about My Family

Learning to Live Together at School

Learning How to Live Safely

Learning How People Travel

LEVEL ONE

Theme: "The Family and School at Home and in the Larger Environment"

Suggested Units:

Finding Out about Each Other

How the Family Works

The Health of the Family

The Protection of the Family

How the School Family Works

Families at Home and Abroad

LEVEL TWO

Theme: "Neighborhood Community at Home and in the Larger Environment"

Suggested Units:

- The Neighborhood
- Workers Who Supply Us with Goods
- People Who Provide Services for Us
- People Who Protect Us
- People Who Give Us Ideas
- Government is Close to Us

LEVEL THREE

Theme: "Community Life Viewed through the Disciplines"

Suggested Units:

- The Community: A Place
- Communities Old and New
- People in a Community
- Needs Provided by the Community
- Community Organization and Government

LEVEL FOUR

Theme: **"Learning about the Earth, Tennessee and Regions of the United States"**

Suggested Units:

- **Learning about the Earth**
- **Places and People on the Earth**
- **Places and People in Tennessee**
- **States of the Southeast**
- **States of the Northeast**
- **States of the Middle West**
- **States of the Great Plains**
- **States of the Mountain West**
- **States of the Far West**

LEVEL FIVE

Theme: **"The United States"**

Suggested Units:

- **America and Its First People**
- **Discovery and Exploration of the New World**
- **Development of an American Way of Life**
- **Establishment of the American Nation**
- **Americans Moving West**

Establishment of a National Unity

Building Modern America

The United States in the World Community

LEVEL SIX

Theme: "The Cultural Areas Outside the United States"

Suggested Units:

Canada

Latin America

Western Europe

The Soviet Union and Eastern Europe

Southwest Asia and North Africa

Africa, South of the Sahara

Eastern and Southern Asia

Pacific Lands and Antarctica

LEVEL SEVEN

Theme: "Continued Investigation of the Social Sciences"

Suggested Units:

The Physical Earth

Culture of the Cherokees: Past and Present

The History and Geography of Tennessee

Social Patterns in Oak Ridge

Structure of the Oak Ridge Economy

Government Organization and Political Processes in Oak Ridge and Anderson County

LEVEL EIGHT

Theme: "The Young Citizen in American Society"

Suggested Units:

The American People: Role of the Individual in the Social Order

Formulating Public Opinion and Public Policy

American Social Institutions: Family, School, Church

State and National Government

Functioning of the American Economy

Conserving and Using the Nation's Natural and Human Resources

Developing Aesthetic Appreciation

LEVEL NINE

Theme: "Development of World Civilization"

Suggested Units:

The Idea of Civilization: The Ancient River Valley Civilizations

Greco - Roman Civilization

Early Oriental Civilizations

The Moslem World

Europe in the Middle Ages

Rise of National States and the Expansion of Europe

The Age of Revolutions

Emergence of the Contemporary World

LEVEL TEN

Theme: "America as a Civilization"

Suggested Units:

The Development of Colonial Society, 1607-1763

Revolutionary America, 1763-1789

Establishing the Federal Union: The Constitution

The New Nation, 1789-1815

American Expansion, 1815-1850

Civil War and Reconstruction

Industrialization and Urbanization, 1860-1900

Politics in the Industrial Age, 1877-1896

Social Changes and Intellectual Ferment, 1860-1900

LEVEL ELEVEN

Theme: "Twentieth Century America"

Suggested Units:

- The Progressive Movement, 1900-1940
- The Rise of the United States as a World Power
- The United States since World War II
- The Growth of American Economy
- The Expanding Role of Government in Modern America
- The Political Process
- Urbanization in the United States

LEVEL TWELVE

Theme: "Cultural Forces and Areas in the Modern World"

Suggested Units:

- Man, Society and the Social Order
- The Challenge of Communism and the Communist Bloc
- Latin America
- Europe in Transition
- Progress and Revolution in Eastern and Southeastern Asia
- The Changing Character of the Moslem World
- Africa: Continent in Ferment
- The Commonwealth Nation: Prospects for the Future
- The United States in a Global World

SOCIAL SCIENCE SLIDES ON TENNESSEE

SLIDES	NUMBER
Reelfoot Lake	6
Coal Mining from Ground to Use	26
Ducktown Copper Basin	13
Natchez Trace	7
Hermitage	11
Fort Nashborough	6
Rockwood Industrial Sites	9
Nashville and the Capital	14
James Polk Home	4
Bowater Company	5
Sam Davis Home	2
Kingston Steam Plant	3
Fort Donelson and Stone's River National Park	10
Ferry	3
Carter House	5
Chucalissa Indian Village	11
Cherokee National Forest	8
Tennessee Valley Authority Dams	3
Lookout and Chickamauga National Parks	27
Flume System	4
Agricultural Scenes	9
Industrial Sites	5
Rivers of Tennessee	5
Land Forms	11
Cumberland Gap	5
Assorted	7

SOCIAL SCIENCE RESOURCE MATERIALS ON TENNESSEE

TITLE	COPIES
Tennessee Blue Book, 1965-66 (Special Edition for Young Readers)	40
Early History of the Southeastern States (A book published by Southern Bell)	4
Other Materials from Southern Bell Programs (available without cost) (Films, talks, demonstrations and booklets are listed)	50

BOOKLETS

How the Telephone Works	1
The Telstar Experiment	2
The Magic Behind Your Dial	2
Coaxial Cable	2
The Men and the Telephone	4
Principles of the Optical Maser	7
Mr. Bell Invents the Telephone	2
A Nose for News is not Enough	1
The Transistor Age	2
The Story of the Bell Solar Battery	2
The Magic of Your Telephone	4
Satellite Communications Physics	3
The Picturephone Story	2

A Look at the Bell System	1
Story of the Bell Solar Battery	1
Challenge and Opportunity	1
Electronics Unlimited	4
What Do We Need Most from Engineers?	2
Groundwork for Space	1

CONSERVATION BOOKLETS

Department of Conservation (Geology) List of Publications	1
List of Films (Booklet)	4
Conservation Education	8
History of Forest Conservation	1
Conservation Biennial Report	3
The Soil that Went to Town	1
Sewers and Civilization	1
Stream Pollution Control	2
Comic Books on Wildlife	50
The Role of Ecology in Man's Survival	1
Will We Have Enough Water?	25
Teaching Conservation	1
The General Water Situation in Tennessee	1
What the Soil Conservation Service Does	1
Conservation Education in the School	7

From the Dust of the Earth	1
More Wildlife	1
Early American Soil Conservationists	1
Department of Conservation State of Tennessee Biennial Report, 1962-64	5
Your Club Can Open the Door to Conservation Education	8
A Job with the Forest Service (A Guide to nonprofessional Employment)	27
Tennessee Fish and Where to Catch Them	69
Tennessee Wildlife	98
Tennessee Hunter Safety Program	92
Public Outdoor Areas in Tennessee	139
Tennessee Game and Fish Commission	1

STATE PARKS

The Most Beautiful Shrine to a Private Soldier in the United States	1
Camping	6
Camping Tennessee	2
Campfire Safety - Vacation at Beautiful Reelfoot Lake of Tennessee	1
Information and Fact Sheet	1
Summertime in Tennessee State Parks	5
Harrison Bay State Park	8
Fall Creek Falls State Park	1

Historic Montgomery Bell State Park	5
Vacation Time in Tennessee	5
Shelby Forest State Parks	28
Henry Horton State Parks	28
Paris Landing State Park	20
Standing Stone State Park	25
Big Ridge State Park	25
Norris Dam State Park	25
Pickett State Park	25
Cove Lake State Park	25
Chickasaw State Park	25

TENNESSEE VALLEY AUTHORITY

Visitors are Welcome at T.V.A.	1
Old Hickory Lock and Dam	4

NASHVILLE

You'll Enjoy Nashville, Tennessee	3
Statistical Record of Nashville	1
The Story of Nashville	1
Maps of Nashville	8
Music City News	2

HISTORICAL

Booklets

Unconditional Surrender: Fall of Fort Donelson	1
Great Battles of the Civil War	1
Tennessee - Historical Quarterly (Cumberland Gap)	1
The Fall of Fort Henry	1
Tennessee - History in Brief	1
Shilok	1
Tennessee - Historical Markers	1
Tennessee - Conservationist	1

Pamphlets

Old Hickory (Tennessee - With a New Outlook)	1
Tulip Grove	1
Fort Donelson	4
Emblems and Symbols	6
The Carter House	5
Casey Jones Home	3
Shilok	2
Stones River	2
Meriwether Lewis Park (Natches Trace Parkway)	25
History on the Highways	12
The Decisive Battle of Nashville	1

Posters and Charts

Raising the Siege Chattanooga	1
- For the Tree. . . is man's life posters	5
Prevent Woods Fires - assorted	16
The Telephone Story	1
How a Tree Grows	8
Reelfoot Lake	2
What We Get from Forest Land	7
What We Get from Forest Trees	8
Growth of a Tree	1
Forest and Trees of the U.S.	1
Keep Hunting a Safe Sport	2
Game and Fish Picture	1
Thanks, Folks, for Being Careful posters	2
Great Smoky Mountains	1
The Wonderful Outdoors	7
Audubon - Bulletins and Charts	9
Public Outdoor Recreation	37
Power Reactors in Small Packages	1
Accelerators	1
Nuclear Power and Merchant Shipping	1
Synthetic Transuranium Elements	1

Power from Radioisotopes	1
Atoms in Agriculture	1
Nondestructive Testing	1
The Creative Scientist	1
Plutonium	1
Fallout from Nuclear Tests	1
Atomic Power Safety	1
Careers in Atomic Energy	1
Controlled Nuclear Fusion	1
Neutron Activation Analysis	1
Direct Conversion of Energy	1
Nuclear Terms	1
Popular Books on Nuclear Science	1
Research Reactors	1
Rare Earth	1
Microstructure of Matter	1
Atomic Fuel	1
Whole Body Counters	1
Our Atomic World	1
Food Preservation	1
Atoms at the Science Fair	1
Nuclear Reactors	1

FORESTRY

The Recreation/ Conservation Sticker 1965	1
Cherokee National Forest Information	1
Wilderness	1
Holding the Line	1
Forestry Activities	1
Use Your Family Forest for Profit	10
Products of American Forests	3
Roan Mountain Gardens	18
A Job with the Forest Service	1
Guide to Your National Forests, Parks, Monuments and Historic Sites	1
Women, Your Challenging Role in Forest Conservation	1
In Our Forests are Many Mansions	1
Counter Attack, the Fight against Forest Insects and Diseases	1
Making Paper from Trees	7
Memorial Forests	7
Logging and the Production of Lumber	7
Selected References on Forests and Related Natural Resources	5
Horizons Unlimited	1
Cherokee National Forest	1
Forests and the Natural Water Cycle	7

How Man Starts New Forests	7
What the Forester Does for Wildlife	7
Edible Fruits of Forest Trees	7
Forests and Wildlife	14
Planting Forest Tree Seedlings	7
Forests and Water	7
Common Forest Trees of Tennessee	2
Trees, Shrubs and Wild Flowers	1
Teaching Soil and Water Conservation	1
$1,600 to One (Department of Conservation)	1
Tennessee Forest Fire Laws	7
Prevention and Suppression of Forest Fires in Tennessee	3
Field List of Tennessee Birds	4
Forestry Activities	2
How Fire Ruins Timber	7
Suggestions for Integrating Forestry in the Modern Curriculum	7
How a Tree Grows	7
Is There a Job in Your Future	1
Why the Leaves Change Their Colors	11
Forest for the Future	7
Starting a Community Forest	8
Enemies of the Forest	7

The Tree and the Soil	7
Uncle Billy's Speech	7
Some Fruit-Bearing Trees, Shrubs and Vines Attractive to Birds	7
Wood, Material of a Thousand Uses	7
Conservation Pledge	7
How Our Forest Serves Us	7
List of Forest Service Field Offices	7
What to do when Lost in the Woods	7
Cherokee National Forest	4
In Our Forests are Many Mansions	7
Suggested Questions for a High School Conservation Quiz	7
State Tree Booklets	4
Our Forest Bounty	1
Why We Must have Tree Farming	1
Forestry - A Profession with a Future	1
The Forest Adventures of Mark Edwards	1
Common Forest Trees of Tennessee	1
Multiple Use - The National Forests and Your Family	1
The Story of Pulp and Paper	1
The Story of Hardwood Plywood	1
The Story of Lumber	1
Teachers Manual for American Forest Products Industries, Inc.	1

It's A Tree Country	1
Cherokee National Forest Information	3
Tennessee Forests	2
A Job with the Forest Service	1
Bibliography of Teaching Aids	1
Forest and Flame in the Bible	1
You and Forest Fires	1
Tennessee Timber Trees	3
Forest Management Assistance to Landowners	1
Protecting the Forests from Fire	1
Forestry Schools in the United States	1
National Parks and National Forests	9
Multiple Use of Our Forests	2
Keep America Green	1
Facts about the Forests	1
Tennessee Tree Farm and Mill Tours	1
How You Can Become a Tree Farmer	1
Conservation Activities for Young People	4
Sport Fishing, Inc. Pub.	1
State Tree Booklet	1
The Role of Ecology in Man's Survival	5
Past and Aims of State's Conservation Education	1

Tennessee's Forest Fire Laws	1
Prevention and Suppression of Fires in Tennessee	1
Tennessee Forest Facts	1
Why We Must have Multiple Use Forest Man	1
A Passport to Adventure, Mission 66	2
The Legend of the Pecan Tree	2
Post Card of Bear Cub	1
A Summer Job with U. S. Forest Service	1
The National Parks	1
Materials to Help Teach Forest Conservation	7

PUBLICATIONS AND TEACHER AIDS

Booklets

List of Publications, June, 1965	5
Tennessee - Alabama - Georgia	1

Pamphlets

Books on Tennessee	1
Bibliography of Teaching Aids	9
Curriculum Aids	2
Forest and Related Natural Resources	1

Books (Paperback)

A Guide to Study and Reading of Tennessee History	1
A List of Tennessee State Publications	1

MEMPHIS, TENNESSEE

Booklets

Memphis Hotel and Motel Guide, July, 1965	1

Pamphlets

The Fontaine House	1
Let's Look at Memphis	1
Economic Factors	1
Mid-South Fair	2
River Boat Ride	6
Brooks Memorial Art Gallery	1
Lumber and Memphis	1
Let's Look at Memphis	2
Magic Memphis	1
Memphis (Gray Line Tours)	5
Citizen of Memphis	3
Memphis - Right Target	13
Chucalissa Indian Town	2
Steamboat Delta Queen	1

Papers

Facts and Figures of Chucalissa Indian Town	2

This is Memphis	2
Fishing Report, Memphis	2

Map

Memphis Medical Center	1

INDUSTRIAL TENNESSEE

Teacher's Kit

Industrial Data Tennessee	1

Booklets

Tennessee Copper Company	1
An Invitation to Industry	1
Tennessee - Industrial Advantages and Opportunities	1

TOURIST ATTRACTIONS

Pamphlets

Tansi Report	1
You'll Enjoy Tennessee	1
The Dixie Land Trail	2
Tennessee Lost Sea	1
Goldrush Junction	1
Vacation Time in Tennessee State Parks	1
Summertime in Tennessee State Parks	1

Booklets

The Guide - July, 1965	1
Land of the Smokies, August, 1965	1
Civil War Booklets	2

Maps

Reelfoot Lake	7
Hubland, U.S.A.	2

AGRICULTURE

Cotton - From Field to Fabric	1
National Livestock and Meat Board (40th Annual Report) (1962-1963)	1
Cotton seed and its products (chart)	2
King of Cow Country	1
Cotton Farming (Mid-South Edition) September, 1964	1

Seeds

Bluebonnet 50 Seed Rice	1
D and PL Cotton Seed	1
Souvenir Cotton Bale	1
Souvenir Cotton Boll	4

APPENDIX G

MATHEMATICS TRANSPARENCIES AND OVERLAYS

Thermometer
    Centigrade
    Fahrenheit

Metric System Chart

Metric System Prefixes

Drawing to Scale (3)

Largest number that has a name

Ratio

Early Hindu Arabic numerals

Mayan - Hindu Arabic numerals

Sieve of Eratosthenes

Many numerals for same number

Exponents

East and West Arabic numerals

Egyptian numerals

Symbols for numbers

Sets (pictures)

Symbols

Numbers are same regardless of symbol

Base 5

Addition of fractions

Factors and products

Multiplication of fractions

Pythagorean Rule

Line segment, area and volume

Principles of addition

Principles of multiplication

Modulo 12

Modulo 3

Chart of base 7

The regular polygon family

Hexagonal prism

Cylinder

Hemisphere

Pyramid with triangular base

Cube

Triangular prism

Numbered segments

Point, line, plane, space

Intersection of three planes

Some things to remember about:
    Two planes
    A line and a plane
    Two lines

Two intersecting planes

Three intersecting planes

Points and lines

Intersection of three planes

Classification of triangles

Diagram of $\triangle XYZ$

A circle $(\odot)$ $C = (X \mid \overline{CX} \cong \overline{CD})$

Quadralaterals

Square

Angles

The parallelogram family

Angles (adjacent, complementary, supplementary)

Parts of a circle

Circle marked off in degrees

Circumference of a circle

Geometric figures in a plane

Experimenting with circles

Rectangle

Grids

Nature's geometry (snowflake)

Circle

Protractor

How many angles can you see?

Exponential notation and polynomial form

Prime factors

Base 12 chart

Other bases

Symbols $>, <$

Math symbols

Symbols for mathematics language

Number tree

Quadratic formula

Number line

Nomograph

Which of these relations are functions?

System of Equations

Properties of inequality

Sets and sentences

Subset of a set

Sets and subsets

Sets that intersect

A problem about sets - Solution of problem

Intersection of sets

Disjoint sets

APPENDIX H

A STATEMENT OF PHILOSOPHY FOR THE OAK RIDGE PUBLIC SCHOOL ARTS PROGRAM

Part One--Background

Underlying the comments in this paper are the following words of the American Association of School Administrators, issued as a policy statement in 1959:

> We believe in a well-balanced school curriculum in which music, drama, painting, poetry, sculpture, architecture and the like are included side by side with other important subjects such as mathematics, history, and science. It is important that pupils, as a part of general education, learn to appreciate, to understand, to create, and to criticise with discrimination those products of the mind, the voice, the hand and the body which give dignity to the person and exalt the spirit of man.

Any school system that attempts to implement this directive in an honest way must seriously try to serve all the students, and serve them in such a way as to make the arts a valuable part of their adult lives. In order to do this, the Oak Ridge School System must pay particular heed to three major points.

First, the future importance to the student of the arts curriculum. Since most of our young people will never be performers, actors, painters, composers, or writers as adults, but all will be consumers of the arts, it follows that our arts program should stress understanding of all of the arts rather than performance in only a few. Furthermore, this must be an understanding of basic principles rather than superficial surface appreciation. If performance can add to that understanding then it must be included, but activity in the arts must never be undertaken for any other reason.

Second, the arts must be taught from the soundest principles of educational practice. This includes careful attention to maturation and to perceptual processes, to sound testing and grading practices, to students' needs, and to adequate scheduling. If the arts are, indeed, to be "side by side with other important subjects" they must be given class time for serious academic work. Part of this attention to educational principles will consist of application of the best ideas of learning to the situation as it now exists. There are well-charted periods of creative activity in growing children during which it seems especially profitable to intensify art experiences. It is well-known that ample visual and aural experience must preface adequate aesthetic thinking. Children should be given an environment rich in color, texture, line, value and other visual elements, as well as in tone, meter, harmony, melody, rhythm, and similar aural elements. This is especially necessary for children from sub-standard economic groups.

Third, the schools must carefully think through the traditional role of the student within the institution. What relationship should the student have to the school? The accepted idea of the school is an institution established to serve the student. In the arts, this has been reserved. All too often it is the student who is used for the school's purposes. No art-music-drama activity can be condoned if it does little to prepare the young person for his future life as an adult consumer of the arts. This must be kept uppermost in any curriculum planning in the arts area.

Part Two

The Oak Ridge Study Committee

A statement of philosophy may be ever so sound and carefully thought out, but so long as it remains only on paper, it has litttle effect. Philosophy must be translated into action in the classroom, and this in turn must result in "a changed student" if learning can be said to take place. To this end, several positive steps have already been made in Oak Ridge:

1. A series of conferences has been initiated in which:
    a. The administration of the schools discussed new directions in arts education with Dr. Leon Karel, visiting consultant from Missouri State Teachers College.
    b. The fine arts staff (art and music) similarly discussed the possibilities in new integrated approaches to the arts.
2. A study committee of fine arts instructors was formed to continue exploration of curricular changes in this area. Membership in the committee was as follows: Peggy Flanagan, Genevieve Johnson, Ardyce Lee, Alice Lyman, Steve Combs, Hilda Stuhlmiller, James Gentry and Irvin Grossman.

This group scheduled three meetings, at the second of which Dr. Karel was again present. At this meeting, thinking was directed in definite lines as follows:

a. The Oak Ridge Schools definitely need to give more attention to the majority of students at the upper levels for whom there is no art or music activity at the present time. If the student does not play, sing, act or paint, he is presently given no outlet in the arts or any understanding of them. One outcome of this line of thinking has been the planning of a course in fretted string instruments, said to be attracting large numbers of students heretofore untouched by the traditional programs.

b. Connected with this attention to a wider segment of the student body comes a corollary realization that education must be aimed at preparing all students for responsible adult consumers' roles in the arts. For this, we all need to know art principles, elements, structures, literature, style, and above all standards of taste. Each students must be taught to "think aesthetically," just as he is now taught to think historically and scientifically. An outcome of this realization has been the tentative decision to include a course of courses in "allied arts," such studies to include training in "how to listen and how to look," or if you will, in "perception."

c. A third realization by the Committee is that young children need vast amounts of "raw experience" in things audible and visual, and that this experience must be of as high a quality as possible, and as early as possible. New ways of bringing more music and art, poetry and dance to children must be found. Here a vital problem is that of finding the school time for such necessities.

d. A fourth factor considered is that of the role of traditional arts classes and organizations. Should they be kept as they are, cut back, augmented, or done away with? What happens to the traditional "performance" and "production" aspects we are so used to? The Committee is of the general opinion that present activities have merit and are of value to both pupil and school. Indeed, experience has shown that as more arts instruction of a consumer nature is offered to large segments of the student population, more of these students want to then learn the special areas of painting, music, drama and dance. The "related arts" course acts in the same way as a course in general science, opening doors for the young person into new areas. The present practice of restricting a secondary school youngster to only one area of the arts, the committee feels is a negation of the whole idea of a general education.

e. A final consideration has to do with the school's use of the arts. If the arts are to take their place as serious segments of the curriculum, administrators and the general public must resist the ever-present temptation to treat them as entertainment media, and exploit them for public relations purposes. From the elementary school assembly program to the high school homecoming game, the arts are called on to provide entertainment, pomp, pageantry and decoration. Frequently this is done at the expense of a planned program of learning. Faced with the necessity of getting ready for one appearance after another, many a teacher in the arts abandons any planned program of well-rounded pupil growth in his art area.

The Committee feels strongly that art shows, assembly programs, concerts, plays, posters and so on are excellent outlets for student talent when these grow out of a planned learning sequence. Such activities must always be under the control of the instructor, however, and certainly should never be dictated by persons whose interests are other than educational ones.

Part Three

A Working Program

The Committee has realized that any program based on so great a change in basic philosophy must be undertaken carefully and cautiously, for the following reasons:

1. The changed thinking must be shared by the majority of teachers who will be involved.
2. The administration must be convinced that the new directions will be suitable ones.
3. New courses, and novel approaches in established courses will need working out.
4. Materials of kinds not now available will be needed.
5. Present instructors will need re-training and new ones skilled in the teaching of related arts may have to be found.
6. Facilities and scheduling may need revision.

For these reasons, the Committee has adhered to the general idea of introducing only a few new ideas at a time, and planning a gradual evolutionary program to stretch out over a period of several years. It may help to visualize the total problem by thinking of the educational structure in its several customary segments, and applying the newer concepts to the established framework.

Kindergarten through Fourth Grade

The role of the arts in the young child's mental and emotional maturation processes is much greater than has been supposed. The specific time now set aside for classroom art and music activities (a matter of a few minutes per child per week in most cases) should be added to, but in addition the total aesthetic environment must be greatly enriched. Great art of all kinds must be constantly shown in schoolrooms and corridors. Sculpture must be a part of the child's school life. Fine music, not necessarily obtrusive but always available in the background, should be a part of each child's daily learning environment. Just as the schools now matter-of-factly provide for the child's temperature, lighting and sanitary requirements, so the schools of tomorrow must provide the best possible artistic environment. In their emphasis upon creative expression and spontaneous exploration of the arts, the K - 4 music and art classes are doing an excellent job in Oak Ridge, limited only by the brief time available within the present schedule.

Fifth through Sixth Grades

The child has grown out of the exploratory age-level and now discovers the social aspects of the arts. He finds that his music can be an avenue of gaining the approval or disapproval of his peers, depending upon the climate established within his school and classroom. His drawings now corresponds to the world about him, or tries to. He grows sensitive about his production in the arts, and may develop a fear of failure and ridicule.

The study of the arts may profitably introduce a first interdisciplinary course at this point, stressing study and understanding of the art processes alongside production. Basic concepts may provide deeply satisfying answers for the student, who by this age has often developed surprising power to question the meaning of things in his environment. Such a course might be termed "Creativity I" and deal not with any one art, but with concepts common to all. Meanwhile, of course, the traditional organizations and classes continue to supply the arts activity which makes for the well-rounded student.

Junior High School

The Junior High years should see an intensification of the interrelation of the arts with a "Creativity II" course. Here, the student goes deeper into basic elements, forms, and principles of all the arts. He may also study creativity, itself, learning something of how his mind receives the sense impressions it feeds on, and what it does with them.

This age-level should also provide diversification of the art activities open to students. More study of social instruments, keyboard, etc., and some attention to the dance as an art should be given. Ensemble work is emphasized here, and drama should be given wider scope as a student activity and study.

High School

Two innovations might be introduced at this level. The first is "Creativity III" which is the "Allied Arts" course aimed at teaching the future citizen (and non-performer) to live intelligently with the arts. Critical and creative thinking as well as value judgment will be taught.

This would be the capstone of the program to aid all future citizens, and should result in a graduate who is aware of the aesthetic consequences of things which are happening in his daily world.

The other innovation is a "Humanities" course in which the high school senior will study the historical meaning of the arts, and their role as examples of "man's search for beauty and truth." Such a study is profitable only for a student who is able to evaluate arts on their intrinsic qualities first, and hence should logically follow the other approaches described earlier.

Part Four

Possible Outcomes

1. A new kind of student should emerge from such a curricular sequence, one who is able to think with the same skill and assuredness in artistic matters as in scientific or historic ones. Such a student will have a start toward building his own value standards, and know the rudiments of making a sound judgment in the arts.

2. A new kind of teacher will develop from among those called upon to staff this program. Heretofore teachers in the arts have been the narrowest of specialists; now a true "generalist" will be encouraged. Such a teacher cannot remain indifferent to the broad needs of the student.

3. A new spirit of unity will appear within the fine arts area itself. Once the now-separated arts find a common ground on which to meet, they will re-establish ties now virtually invisible in the modern compartmentalized curriculum.

4. A new respect will be accorded the fine arts within the curriculum. No longer the school "entertainers" the arts will gradually be seen for what they are, a mode of thinking fully as important as any other now offered in the curriculum.

APPENDIX I

INDUSTRIAL ARTS

SECONDARY

We agree with the basic philosophy as stated in the handbook of the Oak Ridge Schools. The objectives of industrial arts like other educational goals, must be based upon a sound philosophy of education.

We recommend a program be started for grades K - 6. This would be a program to introduce industrial arts in the elementary grades. It would take a teacher qualified for this particular grade level and able to work with the other teachers. Industrial arts at this level would be related to units being taught in the classroom at that time. A teacher of this program would be a roving teacher and would need to be trained for this grade level.

In the proposed General Shop in grades 7 and 8, the following has been outlined for a program.

GENERAL SHOP

Grades 7 & 8

I. Communication Subjects

A. Drafting

1. Sketching
2. Pictorial (isometric, oblique, perspective)
3. Orthographic projection
4. Duplicating equipment
5. Electrical schematics
6. Vocational drafting (maps, piping, welding)
7. Blueprint reading
8. Intersection and developing
9. Architectural drafting

B. Photography

1. Developing
2. Printing
3. Enlarging
4. Color
5. Materials and equipment
6. Planning (lighting, composition, shadows)

C. Graphic Arts

1. Lettering
2. Silk screening
3. Stenciling
4. Block printing
5. Offset press - job case, hand set type, etc.
6. Duplicating equipment

D. Electricity

1. Theory (AC-DC communication and industrial)
2. Motor wiring
3. Home wiring
4. Power transmission
5. Home repair (etc.)

II. Comprehensive

A. Woods

1. Joinery
2. Turning
3. Lamination
4. Finishing
5. Adhesives and fasteners
6. Materials

B. Metals

1. Art metals
2. Metal spinning, enameling
3. Wrought iron
4. Sheet metal
5. Welding
6. Foundry
7. Metalurgy
8. Chemical machinery

C. Plastics

   1. Types
   2. Thermo-forming
   3. Casting and injection molding
   4. Cutting and forming
   5. Types of molds or methods

D. Power mechanics

   1. External combustion engines
   2. Internal combustion engines
   3. Steam engine (including atomic)
   4. Jet propulsion
   5. Fuels and fuel cells
   6. Hydraulics

There should be two separate shops--one for communication areas and one for comprehensive areas to be called a General Shop. The 7th grade would have industrial arts for one semester in the comprehensive shop and in the 8th grade one semester in the communications area, so that they would have one full year in grades 7 and 8. It should be understood that all students will not be required to explore fully all the areas outlined. Some will be mentioned in passing, others will be more detailed in instruction. Each one of the areas outlined has not been done in detail, but just to show possibilities of related study and skills. In this proposed course in industrial arts, it would be necessary to have two instructors. One teacher could not cover all the subject areas outlined, and possibly would not have the background or skills necessary to teach each one.

It is suggested that during the last grade period of the 8th grade to exchange the industrial arts class with the home making class and a suitable program be worked out for the girls and boys by the teachers.

In the 9th grade teach one year of drafting and design (General Drafting.)

For an ideal situation classes should be limited to 20 students. At no time should there be more students than work stations.

All phases of industrial arts as outlined for grades 7 and 8 should be taught on a creative and problem solving basis.

Industrial arts should be a general education course in nature, except for terminal students who might have an opportunity for vocational training during the last one or two years of high school. It might be possible for a student to receive a regular diploma and a vocational diploma.

It is recommended that vocational education be started on a limited basis in the high school as soon as facilities and instructors are available. This could be on a reimbursement basis or under our proposed high school industrial arts program. It could be on a basis of courses being taught comprehensive in depth.

It is highly recommended that a vocational program be started next year (1966-67) in auto mechanics or trowel trades or both.

The possibilities should be explored regarding a technician type program (electronic technician, chemical and tool designer) that would offer further opportunities to meet the needs of some students.

The following is a suggested outline for the high school taking their present program and showing the possibilities of increasing some in depth for vocational aspects.

I.	Mechanical Drawing I - Introductory	**Industrial Arts**
	Engineering Drawing II	**Vocational**
	Architectural Drawing III	**Vocational**
II.	General Metals	
	Machine Shop I	**Industrial Arts**
	Machine Shop II	**Vocational**
III.	Woodwork	
	General Wood	**Industrial Arts**
	Cabinet Making	**Vocational**
IV.	Electricity	
	General Electricity	**Industrial Arts**
V.	Power Mechanics	
	Power Mechanics (1)	**Industrial Arts**
	Auto Mechanics (2)	**Industrial Arts**
	Auto Mechanics (3)	**Vocational**
VI.	Trowel Trades (2 years)	**Vocational**
VII.	Plastics	**Industrial Arts**
VIII.	Graphics	**Industrial Arts**

Public Law 89-10 should be explored for benefits that would allow industrial arts teachers to return to educational institutions for training so that their teaching methods could be upgraded.

APPENDIX J

A REQUEST TO INITIATE A POSTURE CORRECTION PROGRAM AT ROBERTSVILLE JUNIOR HIGH SCHOOL

TO: Mr. James Yonts, Assistant Superintendent for Curriculum
FROM: Mrs. J. H. Puryear, Physical Education Instructor
VIA: Mr. George Bond, Principal, Robertsville Junior High School

INTRODUCTION

During the early years of the Oak Ridge Schools, prior to the formation of the City of Oak Ridge, Physical Education programs were provided for all children, K through 12. The program of physical education at the elementary level was discontinued in 1954. This loss of training for younger children is nowhere so noticable as it is at the Junior High School. While some persons will maintain that young children will have enough play activity through free play and the daily exercise which comes through school activity, others acknowledge the vast importance of early training of muscles to the posture of the child. Posture defects manifest themselves most noticably at the pubescent age when children are reaching maturity. While a posture program is provided at the Oak Ridge High School, Mrs. Allen Swasey is quick to state that correction of postural defects at the senior high level is slow and often impossible. Metropolitan

Life Insurance, in its active support of educational programs, has long offered encouragement to programs of this type by stating that 95% of the population suffers from postural defects. Many of these defects may have been corrected had they been detected early and had some corrective program been instituted.

Physical Educators are unanimous in their support of the theory that postural defects are frequent during the junior high years. During these years (12-14) girls mature rapidly. In addition to the problems of normal adolescence, these girls face the problem of feminine development which often causes postural slumps which are easily corrected. Girls (and boys) who mature rapidly, often seem awkward to adults because the perponderance of bone over muscle at this age causes discomfort which results in poor posture. Only short term guidance in posture improvement will often correct forward head defects. On the other hand, girls who suffer from obesity occasionally form psychological attitudes which pervade personality to the extent that their self concept is damaged. These, often acne-faced but attractive children, adopt an attitude of lack of self worth which often takes years to overcome.

At Robertsville, drawing from five elementary schools, the postural problems of the adolescent are clearly seen. These problems might be corrected quickly in smaller classes for physical education or they might correct themselves if individual attention could be given to all children. This is not possible under the present teacher-pupil ratio. Indeed, to give the needed instruction in the regular classes would demand an increase by two more full-time staff members.

PURPOSE

The purpose of this program is to provide corrective programs for students who have a posture defect.

PROCEDURE FOR PROPOSED PROGRAM

1. This program is specifically designed for female students only. If the program is successful, provisions could be made later for males.

2. Screening during the first two weeks of the school year will provide a population for the class. The only criteria for inclusion will be deviation from standard postural guidelines provided by the American Association of Health, Physical Education and Recreation.

3. A five-day week program is suggested using the fifth period of the school day.

4. The suggested schedule for this program is that seventh grade pupils will meet on Monday, Wednesday and Friday and eighth and ninth grade pupils will meet on Tuesday and Thursday. Provision of three periods

for the seventh grade is justifiable because of the large number of problems encountered at this grade level.

5. The School Cafeteria, which may be cleared by the fifth period of the school day, would provide ample space for this class.

6. It is suggested that pupils who are selected for this program should be released from other fifth period classes.

7. An attempt would be made to keep enrollment of this class to a maximum of 25 so that individualized instruction could be provided. This would mean that a list of persons in need of the program could be kept. Those having most need for the program will be included. As a member of the class corrects her posture, another pupil will be assigned to the vacant position in the class. Some persons, because of gross defects, would need the program on a three-year basis. Others, with minor defects, would be expected to improve with one or two semesters in the class.

STAFF RECOMMENDATION

In order to make this program possible, it would be necessary to employ a qualified physical education teacher for the regularly scheduled ninth grade class during the fifth period and for the seventh and eighth grade class during the sixth period. This proposal would mean the employment of a qualified person on a part-time basis, and would mean that the person now assigned to physical education for the sixth period class would be free for other duties in her subject area.

CONCLUSION

By major emphasis being placed on the seventh grade level, a continuity to the corrective posture program can be instituted. This would mean that some children with gross defects would be observed for a three-year period.

SUMMARY

The proposal suggests a corrective posture program for the Robertsville Junior High School. The selection of participants will be by screening in physical education classes. One half-time staff member is needed to teach the regular classes. The class could be held in the school cafeteria during the fifth period.

EVALUATION

This program is suggested on a pilot project basis. If, at the end of one year, there is not noticable improvement, the program could be dropped. The program offers an opportunity for inclusion of children who need help in physical training which will facilitate health and personality development.

APPENDIX K

	Budget	Cash Expenditures		Outstanding Encumbrances	Unexpended Balance
		Month	Year to Date		
Compensation for Personnel Services					
Staff	29,546.00	4,267.63	30,305.54		(759.54)
Consultants	12,375.00	900.00	9,149.00		3,226.00
Participants	20,625.00	1,592.00	18,472.10		2,152.90
Employee Services and Benefits	420.00	1,363.96	1,756.07		(1,336.07)
Supplies and Materials					
Office	1,550.00	39.35	671.95		878.05
Training	3,600.00	79.60	2,492.38	198.33	909.29
Travel Costs					
Consultants, Lecturers	3,600.00		2,514.77		1,085.23
Local	1,147.00		1,222.44		(75.44)
Communications	330.00	51.65	401.94		(71.94)
Printing	2,000.00	37.40	487.56	400.00	1,112.44
Testing Services	750.00		136.63		613.37
Other	1,344.00	25.80	874.37		469.63
	$77,287.00	$8,357.39	$68,484.75	$598.33	$8,203.92

Note to the Budget Classification of Employee Services and Benefits

Instructions from the Tennessee Teachers' Retirement System and the Department of OASI require that the employee's share of the cost of teacher retirement and FICA incurred on account of federal programs be considered as a part of the total program cost, and should be paid as such. The amount budgeted for such services does not include the above classifications, thereby, creating a deficit in the Employee Services and Benefits account resulting from the required charges.